

XR-C2200/C2300X

SERVICE MANUAL

US Model
Canadian Model



Photo: XR-C2200

Model Name Using Similar Mechanism	NEW
Tape Transport Mechanism Type	MG-36SZ10-32

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS (US model)

POWER OUTPUT AND TOTAL HARMONIC DISTORTION
19 watts (for XR-C2300X)/18 watts (for XR-C2200) per channel
minimum continuous average power into 4 ohms, 4 channels
driven from 20 Hz to 20 kHz with no more than 1 % total
harmonic distortion.

Other specifications

Cassette player section

Tape track	4-track 2-channel stereo
Wow and flutter	0.13 % (WRMS)
Frequency response	30 – 15,000 Hz
Signal-to-noise ratio	55 dB

Tuner section

FM	
Tuning range	87.5 – 107.9 MHz
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz
Usable sensitivity	9 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	65 dB (stereo), 68 dB (mono)
Harmonic distortion at 1 kHz	0.7 % (stereo), 0.4 % (mono)
Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz

AM

Tuning range	530 – 1,710 kHz
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz/450 kHz
Sensitivity	30 μ V

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 – 8 ohms
Maximum power output	XR-C2300X: 50 W $\times$ 4 (at 4 ohms) XR-C2200: 45 W $\times$ 4 (at 4 ohms)

General

Outputs	Audio output Power antenna relay control lead Power amplifier control lead
Tone controls	Bass $\pm$ 8 dB at 100 Hz Treble $\pm$ 8 dB at 10 kHz
Power requirements	12 V DC car battery (negative ground)
Dimensions	Approx. 188 $\times$ 58 $\times$ 182 mm (7 $\frac{1}{2}$ $\times$ 2 $\frac{3}{8}$ $\times$ 7 $\frac{1}{4}$ in.) (w/h/d)
Mounting dimensions	Approx. 182 $\times$ 53 $\times$ 163 mm (7 $\frac{1}{4}$ $\times$ 2 $\frac{1}{8}$ $\times$ 6 $\frac{1}{2}$ in.) (w/h/d)
Mass	Approx. 1.2 kg (2 lb 10 oz)
Supplied accessories	Parts for installation and connections (1 set) Front panel case (1)

*Design and specifications are subject to change
without notice.*

FM/AM CASSETTE CAR STEREO



SONY®

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Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 °C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

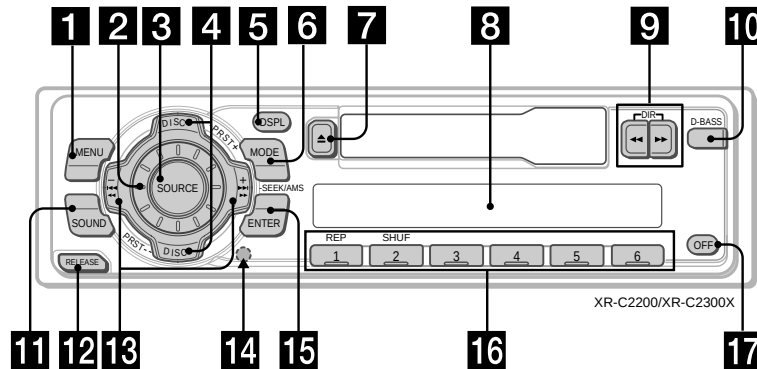
Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

SECTION 1 GENERAL

This section is extracted from instruction manual.

Location of controls



Refer to the pages listed for details.

- 1** MENU button 7, 9, 10, 11, 13
- 2** Volume control dial
- 3** SOURCE (TUNER/CD/MD) button 9, 10, 12
- 4** PRST/DISC +/- (cursor up/down) buttons 7, 9, 10, 11, 13
During radio reception:
Preset stations select 10
During CD/MD playback:
Disc change 13
- 5** DSPL (display mode change) button 8, 12, 13
- 6** MODE button
During radio reception:
BAND select 9, 10
During CD or MD playback:
CD/MD unit select 12
- 7** ▲ (eject) button 8
- 8** Display window
- 9** ◀▶ (fast winding)/DIR (tape transport direction change) buttons 8
- 10** D-BASS button 12

- 11** SOUND button 11
- 12** RELEASE (front panel release) button 6, 15
- 13** SEEK/AMS +/- (cursor left/right) buttons 7, 9, 10, 11, 13
seek 10
Automatic Music Sensor 13
manual search 13
- 14** Reset button (located on the front side of the unit behind the front panel) 6
- 15** ENTER button 7, 9, 10, 11, 13
- 16** Number buttons
During radio reception
Preset number select 10
During CD/MD playback:
① REP 14
② SHUF 14
- 17** OFF button* 6

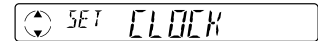
*** Warning when installing in a car without ACC (accessory) position on the ignition key switch**
Be sure to press **OFF** on the unit for two seconds to turn off the clock display after turning off the engine.
When you press **OFF** momentarily, the clock display does not turn off and this causes battery wear.

Setting the clock

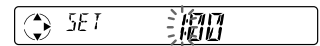
The clock uses a 12-hour digital indication.

Example: To set the clock to 10:08

- 1** Press **MENU**, then press either side of **PRST/DISC** repeatedly until "CLOCK" appears.



- 1** Press **ENTER**.



The hour indication flashes.

- 2** Press either side of **PRST/DISC** to set the hour.

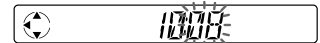


- 3** Press + side of **SEEK/AMS**.



The minute indication flashes.

- 4** Press either side of **PRST/DISC** to set the minute.



- 2** Press **ENTER**.



The clock starts.

After the clock setting is complete, the display returns to normal playback mode.

Installation

Precautions

- Choose the installation location carefully so that the unit will not interfere with normal driving.
- Avoid installing the unit in areas subject to dust, dirt, excessive vibration, or high temperatures, such as in direct sunlight or near heater ducts.
- Use only the supplied mounting hardware for a safe and secure installation.

Mounting angle adjustment

Adjust the mounting angle to less than 20°.

How to detach and attach the front panel

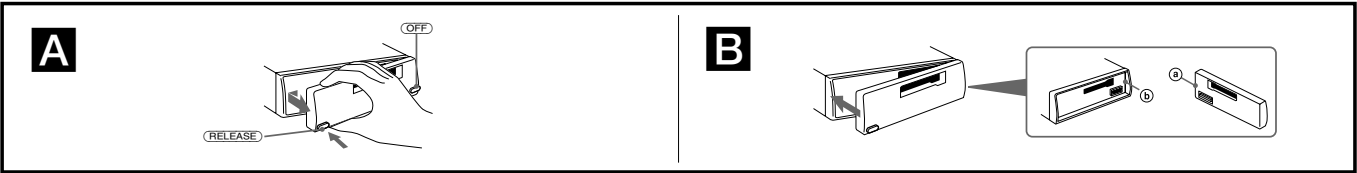
Before installing the unit, detach the front panel.

A To detach

Before detaching the front panel, be sure to press **OFF**. Press **RELEASE**, then slide the front panel a little to the left, and pull it off towards you.

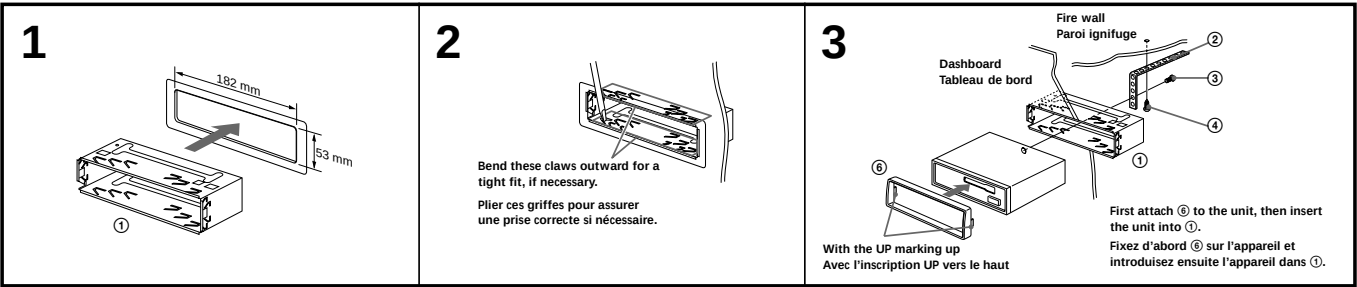
B To attach

Attach part ⑤ of the front panel to part ⑥ of the unit as illustrated and push the left side into position until it clicks.



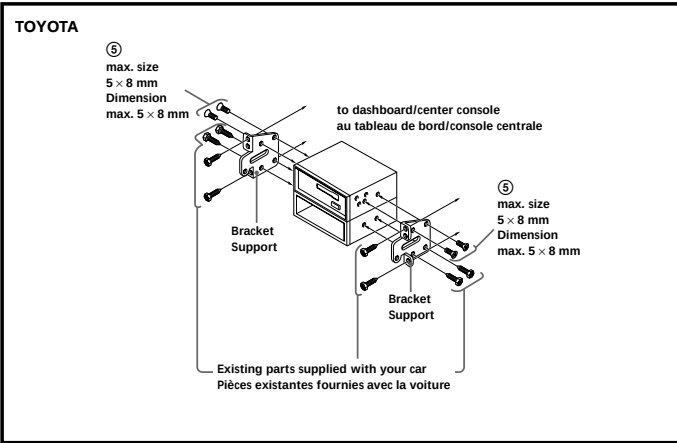
Mounting example

Installation in the dashboard



Mounting the unit in a Japanese car

You may not be able to install this unit in some makes of Japanese cars. In such a case, consult your Sony dealer.



Note
To prevent malfunction, install only with the supplied screws ⑤.

Installation

Précautions

- Choisir soigneusement l'emplacement d'installation pour que l'appareil ne gêne pas le chauffeur pendant la conduite.
- Eviter d'installer l'appareil dans un endroit exposé à des températures élevées, comme en plein soleil ou à proximité d'une bouche d'air chaud, ou à de la poussière, saleté ou vibrations violentes.
- Pour garantir un montage sûr, n'utiliser que le matériel fourni.

Réglage de l'angle de montage

Ajuster l'inclinaison à un angle inférieur à 20°.

Retrait et pose de la façade

Avant d'installer l'appareil, déposer la façade.

A Pour retirer

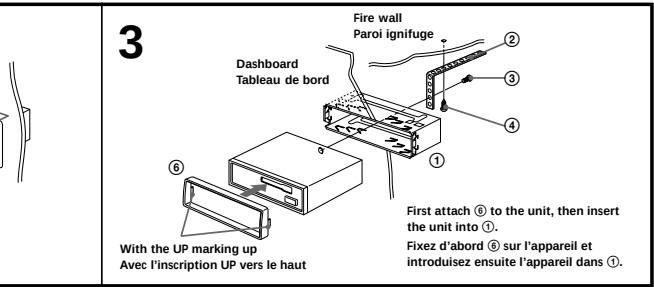
Avant de déposer la façade, ne pas oublier d'appuyer sur **OFF**. Appuyer ensuite sur **RELEASE**, puis faire glisser la façade légèrement vers la gauche et enlever la façade en tirant à soi.

B Pour attacher

Fixez la partie ⑤ de la façade sur la partie ⑥ de l'appareil, comme indiqué sur l'illustration, puis poussez jusqu'au déclic.

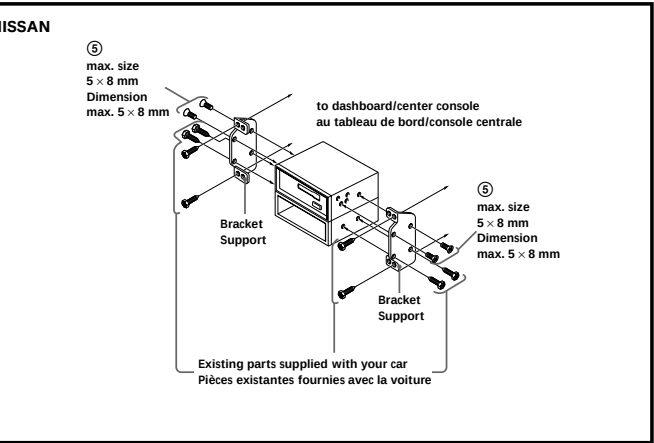
Exemple de montage

Installation dans le tableau de bord



Installation de l'appareil dans une voiture japonaise

Cet appareil ne peut pas être installé dans certaines voitures japonaise. Consultez, dans ce cas, votre concessionnaire Sony.



Remarque
Pour éviter tout dysfonctionnement, utilisez uniquement les vis ⑤ pour le montage.

Connections

Caution

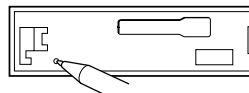
- This unit is designed for negative ground 12 V DC operation only.
- Be careful not to pinch any wires between a screw and the body of the car or this unit or between any moving parts such as the seat railing, etc.
- Before making connections, disconnect the ground terminal of the car battery to avoid short circuits.
- Connect the **yellow** and **red** power input leads only after all other leads have been connected.
- Be sure to connect the red power input lead to the positive 12 V power terminal which is energized when the ignition key is in the accessory position.
- **Run all ground wires to a common ground point.**
- Connect the yellow cord to a free car circuit rated higher than the unit's fuse rating. If you connect this unit in series with other stereo components, the car circuit they are connected to must be rated higher than the sum of the individual component's fuse rating. If there are no car circuits rated as high as the unit's fuse rating, connect the unit directly to the battery. If no car circuits are available for connecting this unit, connect the unit to a car circuit rated higher than the unit's fuse rating in such a way that if the unit blows its fuse, no other circuits will be cut off.

Warning when installing in a car without ACC (accessory) position on the ignition key switch

Be sure to press **OFF** on the unit for two seconds to turn off the clock display after turned off the engine.
When you press **OFF** momentarily, the clock display does not turn off and this causes battery wear.

Reset button

When the installation and connections are complete, be sure to press the reset button with a ball-point pen, etc.



Notes of connection example

Notes on the control and power supply leads

- The power antenna control lead (blue) supplies +12 V DC when you turn on the unit.
- When your car has a built-in FM/AM antenna in the rear/side glass, it is necessary to connect the power antenna control lead (blue) or the accessory power input lead (red) to the power terminal of the existing antenna booster. For details, consult your dealer.
- A power antenna without a relay box cannot be used with this unit.

Memory hold connection

When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition switch is turned off.

Notes on speaker connection

- Before connecting the speakers, turn the unit off.
- Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities. Otherwise, the speakers may be damaged.
- Do not connect the terminals of the speaker system to the car chassis, and do not connect the terminals of the right speaker with those of the left speaker.
- Do not attempt to connect the speakers in parallel.
- Do not connect any active speakers (with built-in amplifiers) to the speaker terminals of the unit. Doing so may damage the active speakers. Be sure to connect passive speakers to these terminals.

Connexions

Précautions

- Cet appareil est exclusivement conçu pour fonctionner sur une tension de 12 V CC avec masse négative.
- Veiller à ne pas coincer de fils entre une vis et la carrosserie de la voiture ou cet appareil ou encore entre des pièces mobiles comme les glissières des sièges, etc.
- Avant d'effectuer les connexions, débrancher la borne de terre de la batterie du véhicule pour éviter tout court-circuit.
- Brancher les fils d'entrée d'alimentation **jaune** et **rouge** seulement après avoir terminé tous les autres branchements.
- Veiller à ne pas raccorder le fil rouge d'entrée d'alimentation à la borne positive de 12 V qui est alimentée quand la clé de contact est sur la position accessoires.
- **Rassembler tous les fils de terre en un point de masse commun.**
- Brancher le câble jaune à un circuit libre de la voiture dont la capacité nominale est supérieure à la capacité du fusible de l'appareil. Si vous branchez cet appareil en série avec d'autres composants stéréo, le circuit de la voiture auquel ils sont raccordés doit afficher une capacité nominale supérieure à la somme des capacités individuelles de chaque composant. S'il n'y a pas de circuits de voiture affichant une capacité égale à la capacité du fusible de l'appareil, brancher l'appareil directement à la batterie. Si aucun circuit de voiture n'est disponible pour connecter cet appareil, brancher l'appareil à un circuit de voiture supérieur à la capacité du fusible de l'appareil de telle sorte que si l'appareil grille son fusible, aucun autre circuit ne soit coupé.

Avertissement en cas d'installation dans une voiture dont le contact ne comporte pas de position ACC (accessoires)

N'oubliez pas d'appuyer sur le bouton **OFF** de l'appareil pendant deux secondes après avoir coupé le moteur de façon à désactiver l'affichage de l'horloge.
Si vous appuyez brièvement sur **OFF**, l'affichage de l'horloge n'est pas désactivé, ce qui provoque une usure de la batterie.

Touche de réinitialisation

Quand l'installation et les connexions sont terminées, appuyer sur la touche de réinitialisation avec un stylo à bille, etc.

Remarques sur l'exemple de connexion

Remarques sur les fils de commande et d'alimentation

- Le fil de commande de l'antenne électrique (bleu) fournit une alimentation de + 12 V CC lorsque vous mettez l'appareil sous tension.
- Si votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière latérale, vous devez raccorder le fil de commande d'antenne électrique (bleu) ou le fil d'entrée d'alimentation d'accessoire (rouge) à la borne d'alimentation de l'amplificateur d'antenne existant. Pour plus de détails, consultez votre revendeur.
- Une antenne électrique sans boîtier de relais ne peut pas être utilisée avec cet appareil.

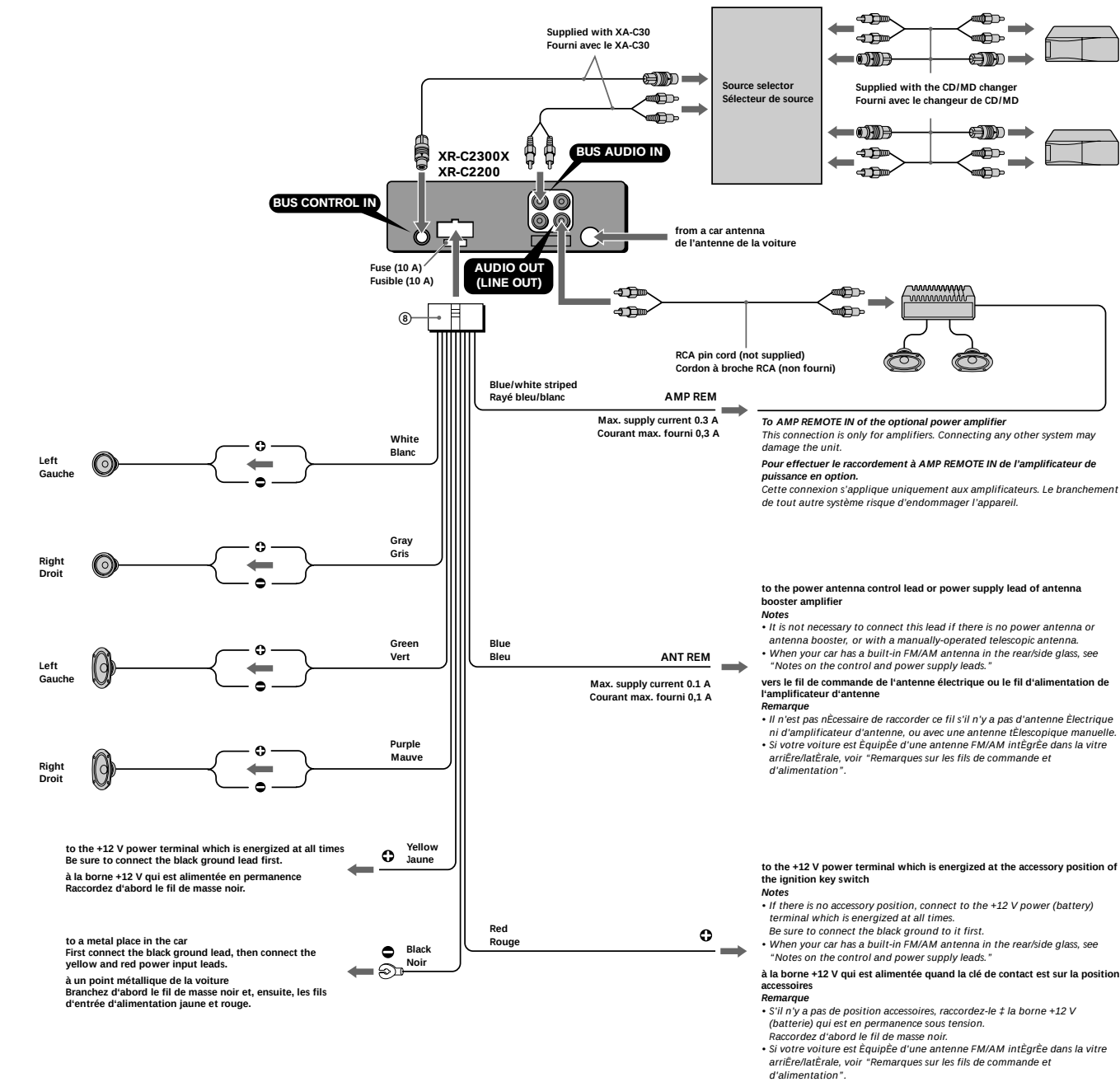
Connexion pour la conservation de la mémoire

Lorsque le fil d'entrée d'alimentation jaune est raccordé, le circuit de la mémoire est alimenté en permanence même si la clé de contact est sur la position d'arrêt.

Remarques sur la connexion des haut-parleurs

- Avant de raccorder les haut-parleurs, mettre l'appareil hors tension.
- Utiliser des haut-parleurs ayant une impédance de 4 à 8 ohms et une capacité adéquate sous peine de les endommager.
- Ne pas raccorder pas les bornes du système de haut-parleur au châssis de la voiture, et ne pas connecter les bornes du haut-parleur droit à celles du haut-parleur gauche.
- Ne pas tenter de raccorder les haut-parleurs en parallèle.
- Ne pas connecter de haut-parleurs actifs (équipés d'un amplificateur intégré) aux bornes de haut-parleur de l'appareil. Les haut-parleurs actifs risquent sinon d'être endommagés. Veiller par conséquent à raccorder des haut-parleurs passifs à ces bornes.

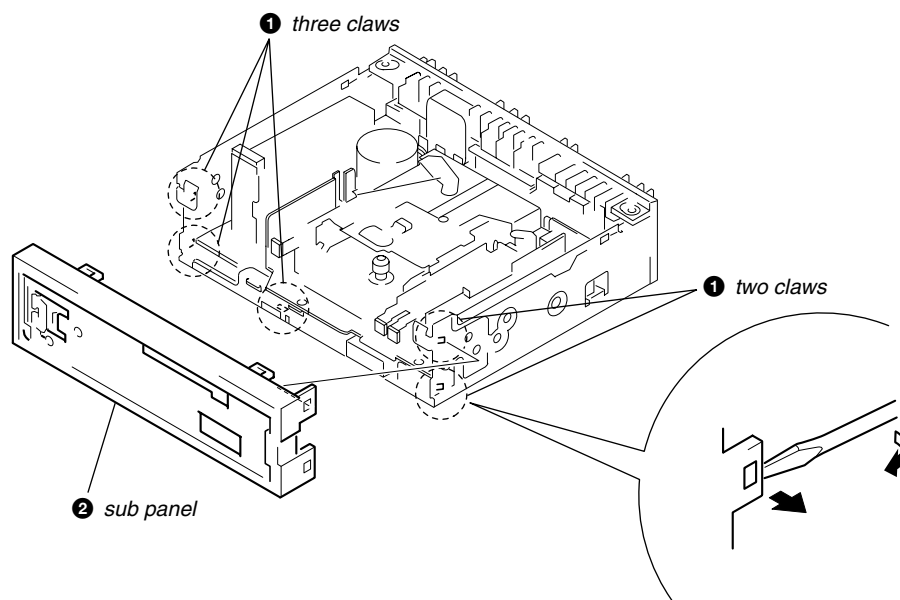
Connection example
Exemple de raccordement



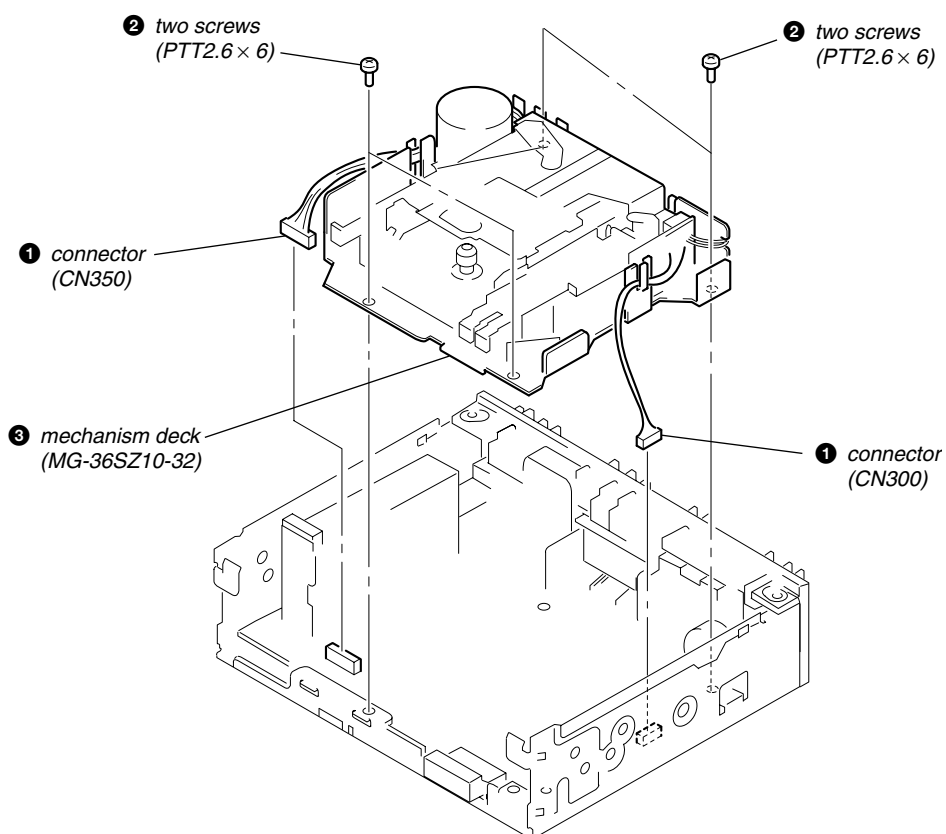
SECTION 2 DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

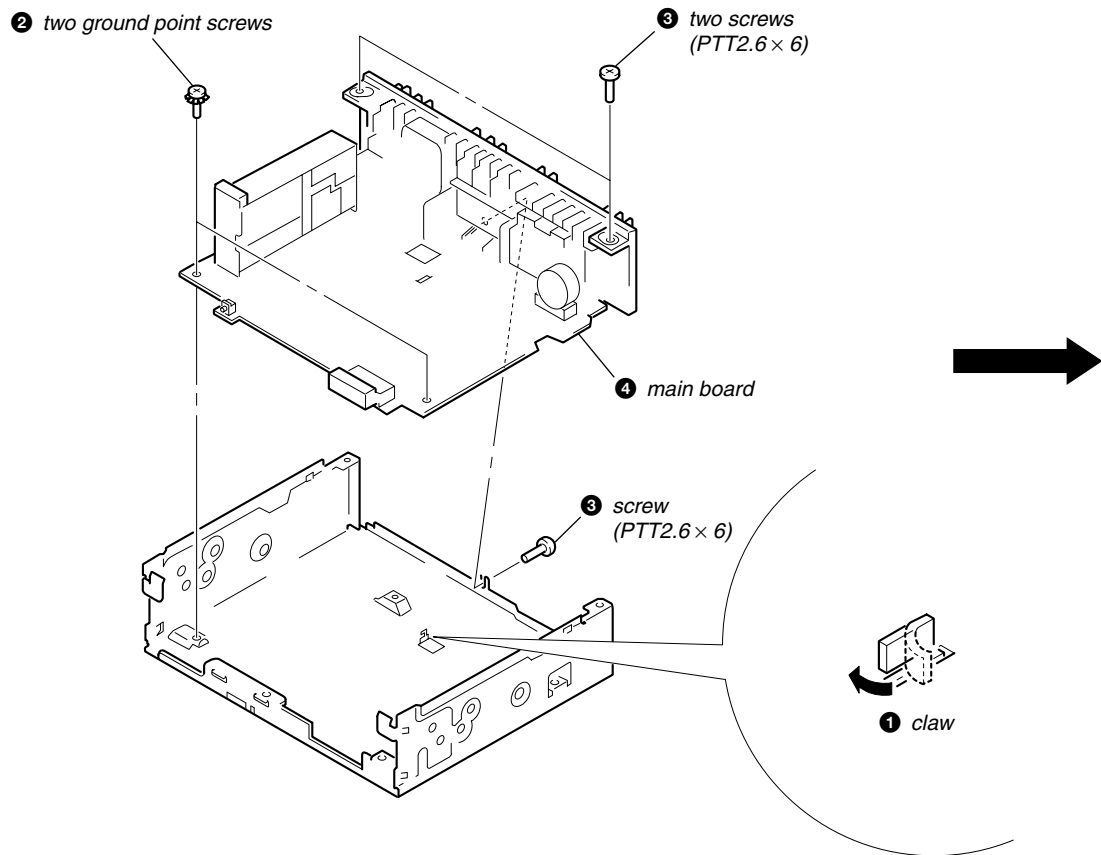
SUB PANEL



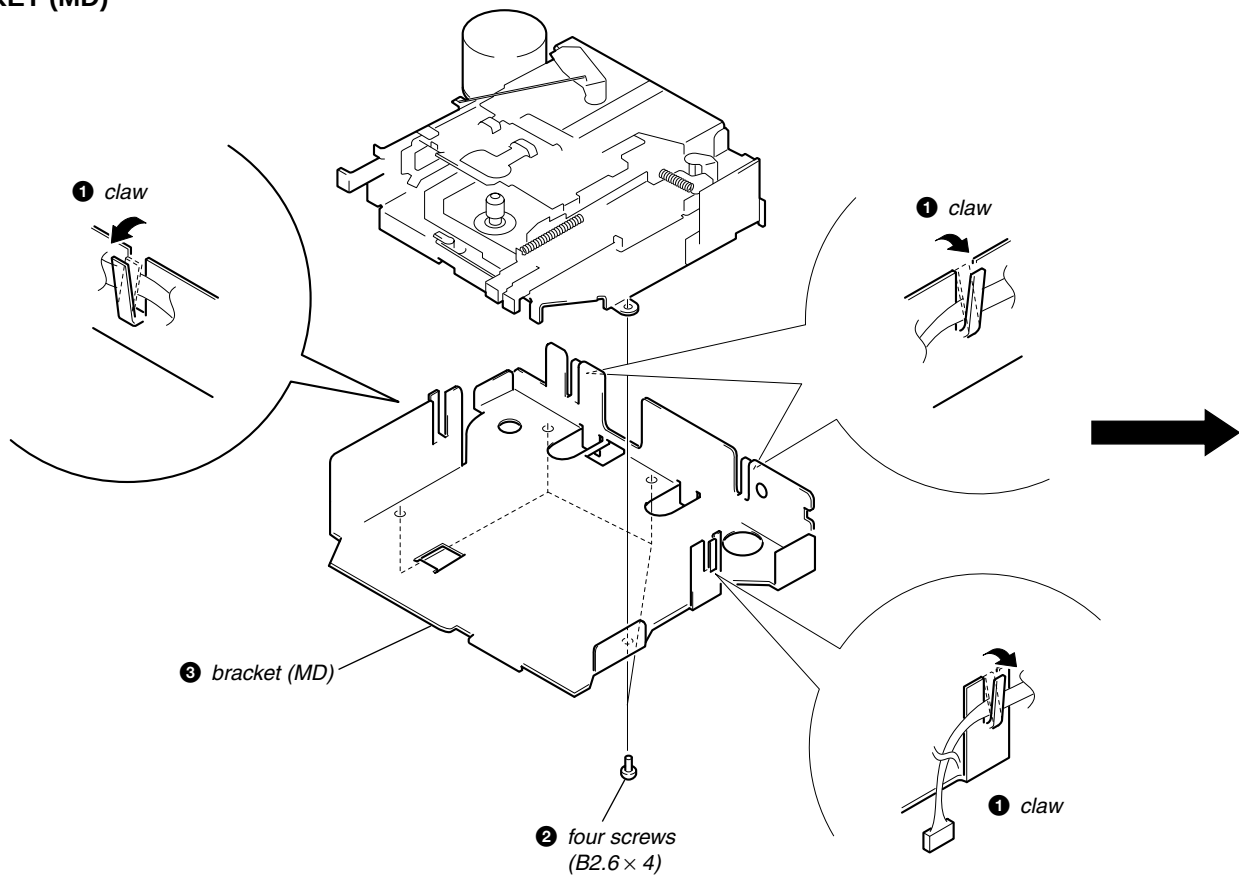
MECHANISM DECK (MG-36SZ10-32)



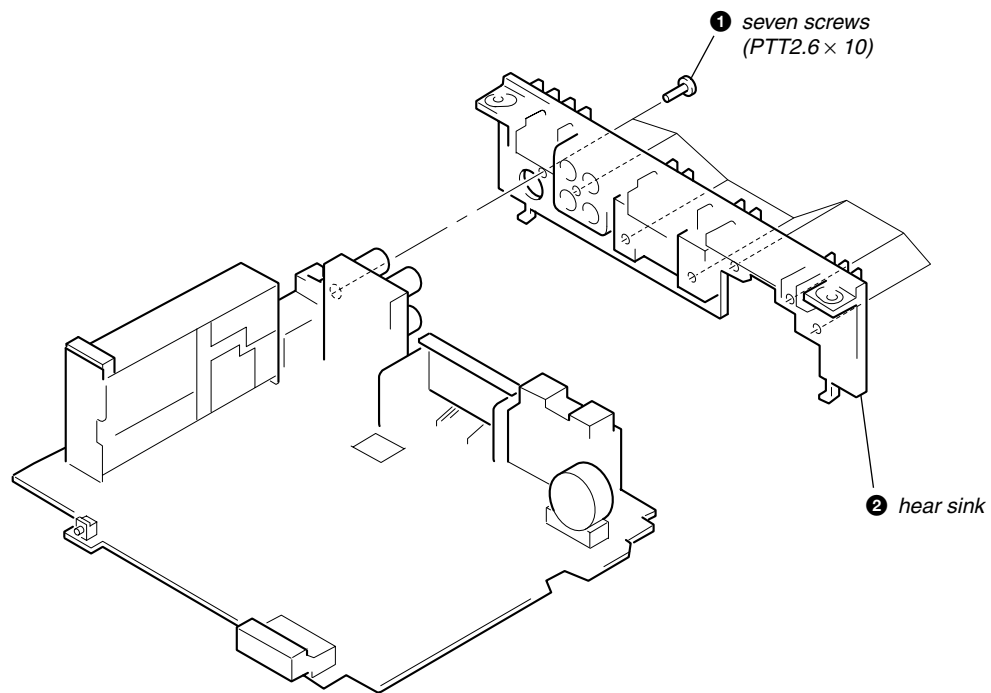
MAIN BOARD



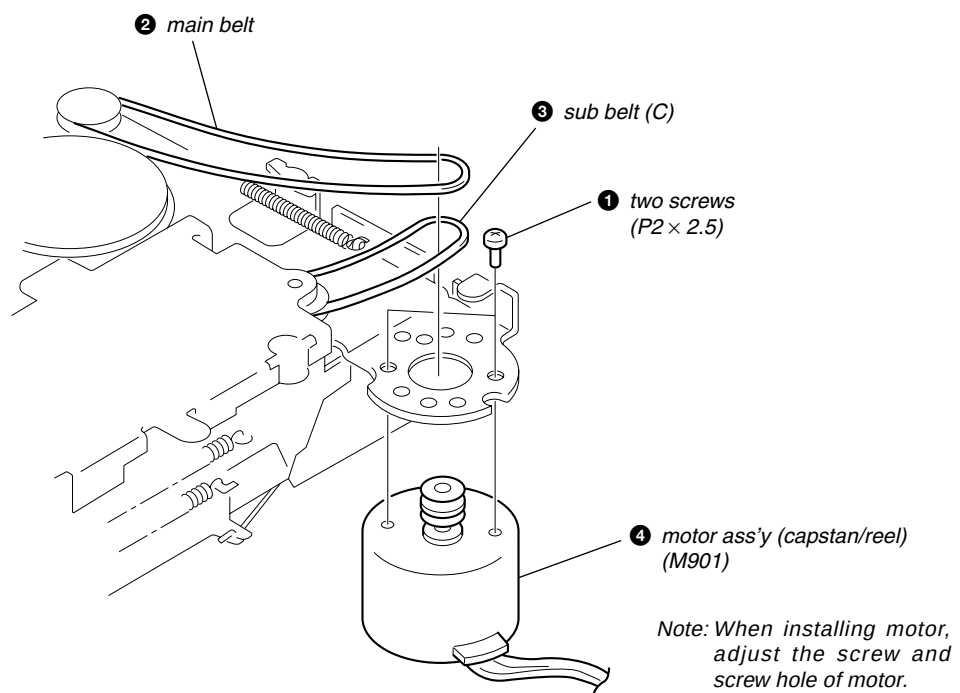
BRACKET (MD)



HEAT SINK



MOTOR ASS'Y (CAPSTAN/REEL) (M901)



SECTION 3 MECHANICAL ADJUSTMENTS

- Clean the following parts with a denatured-alcohol-moistened swab:
 playback head pinch roller
 rubber belt capstan
 idler
- Demagnetize the playback head with a head demagnetizer.
- Do not use a magnetized screwdriver for the adjustments.
- The adjustments should be performed with the power supply voltage (14.4 V) unless otherwise noted.

•Torque Measurement

Mode	Torque Meter	Meter Reading
Forward	CQ-102C	2.46 – 5.39 mN•m 25 – 55 g•cm (0.35 – 0.76 oz•inch)
Forward Back Tension	CQ-102C	0.15 – 0.39 mN•m 1.5 – 4 g•cm (0.02 – 0.06 oz•inch)
Reverse	CQ-102RC	2.46 – 5.39 mN•m 25 – 55 g•cm (0.35 – 0.76 oz•inch)
Reverse Back Tension	CQ-102RC	0.15 – 0.39 mN•m 1.5 – 4 g•cm (0.02 – 0.06 oz•inch)
FF, REW	CQ-201B	4.91 – 14.70 mN•m 50 – 150 g•cm (0.69 – 2.08 oz•inch)

•Tape Tension Measurement

Mode	Tension Meter	Meter Reading
Forward	CQ-403A	5.89 mN•m more than 60 g (more than 2.12 oz)
Reverse	CQ-403R	

SECTION 4 ELECTRICAL ADJUSTMENTS

TEST MODE

This set have the test mode function. In the test mode, FM Auto Seek/Stop Level and AM Auto Seek/Stop Level Check can be performed easier than it in ordinary procedure.

<Set the Test Mode>

- Turn ON the regulated power supply. (All LEDs on the set lights up, and the clock is displayed.)
Note: Press the **[OFF]** button, if the clock is not displayed.
- Push the preset **[4]** button.
- Push the preset **[5]** button.
- Press the preset **[1]** button for more than two seconds.
- Then the display indicates all lights, the test mode is set.

<Release the Test mode>

Push the **[OFF]** button.

See the adjustment location from on page 13 for the adjustment.

TAPE DECK SECTION

0 dB= 0.775 V

- The adjustments should be performed in the order given in this service manual.
- The adjustments should be performed for both L-CH and R-CH.

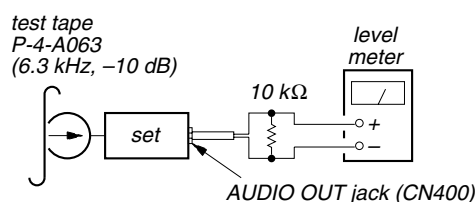
Test Tape

Type	Signal	Used for
P-4-A063	6.3 kHz, -10 dB	head azimuth adjustment
WS-48A	3 kHz, 0 dB	tape speed adjustment

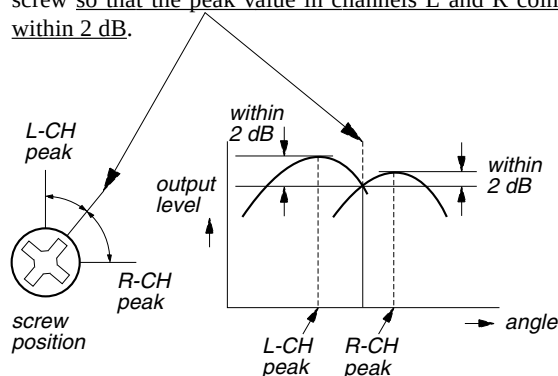
PB Head Azimuth Adjustment

Procedure:

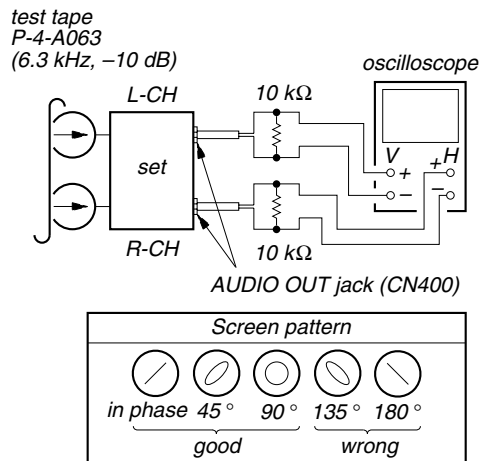
- Put the set into the FWD PB mode.



- Turn the screw and check the output peak value. Adjust the screw so that the peak value in channels L and R coincides within 2 dB.

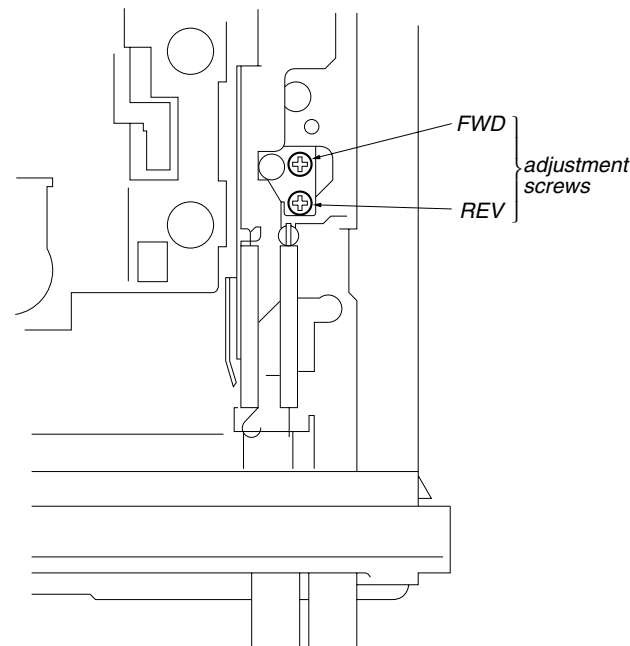


3. Check the phase in the FWD PB mode.



4. Repeat the above adjustment for the REV PB mode.
5. Check that output level difference between FWD PB mode and REV PB mode is within 4 dB.

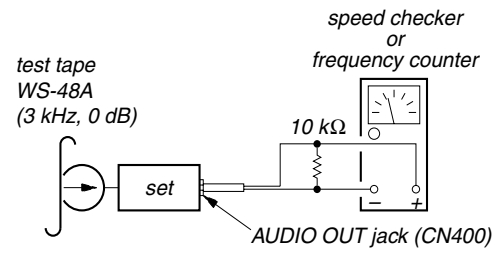
Adjustment Location: PB head



See the adjustment location from on page 13 for the adjustment.

Tape Speed Adjustment

Setting:



Procedure:

1. Put the set into the FWD PB mode.
2. Adjust adjustment resistor for inside capstan motor so that the reading on the speed checker or frequency counter becomes in specification.

Specification: Constant speed

Speed checker	Frequency counter
-2 to +3%	2,940 to 3,090 Hz

Adjustment Location: See page 13.

TUNER SECTION

0 dB=1 μ V

Cautions during repair

When the tuner unit is defective, replace it by a new one because its internal block is difficult to repair.

Note:

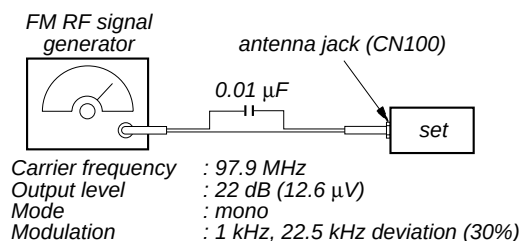
Adjust the tuner section in the sequence shown below.

1. FM Auto Seek/Stop Level Adjustment
2. FM Stereo Separation Adjustment
3. AM Auto Seek/Stop Level Check

FM Auto Seek/Stop Level Adjustment

Setting:

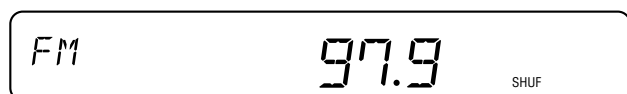
[SOURCE] button: FM



Procedure:

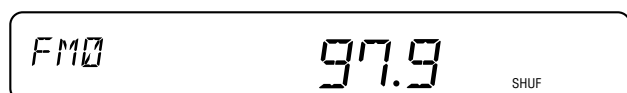
1. Set to the test mode. (See page 10)
2. Push the [SOURCE] button and set to FM.

Display



3. Adjust with the volume RV2 on TU100 so that the “FM” indication turns to “FM0” indication on the display window. But, in case of already indicated “FM0”, turn the RV2 so that put out light “0” indication and adjustment.

Display

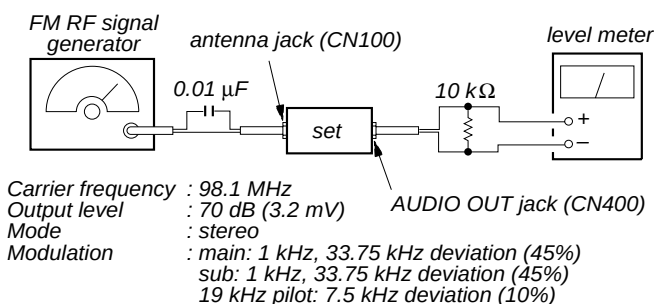


Adjustment Location: See page 13.

FM Stereo Separation Adjustment

Setting:

[SOURCE] button: FM



Procedure:

FM Stereo signal generator output channel	Level meter connection	Level meter reading (dB)
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ Adjust RV1 on TU100 for minimum reading.
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ Adjust RV1 on TU100 for minimum reading.

L-CH Stereo separation: Ⓐ-Ⓑ

R-CH Stereo separation: Ⓒ-Ⓓ

The separations of both channels should be equal.

Specification: Separation more than 26 dB

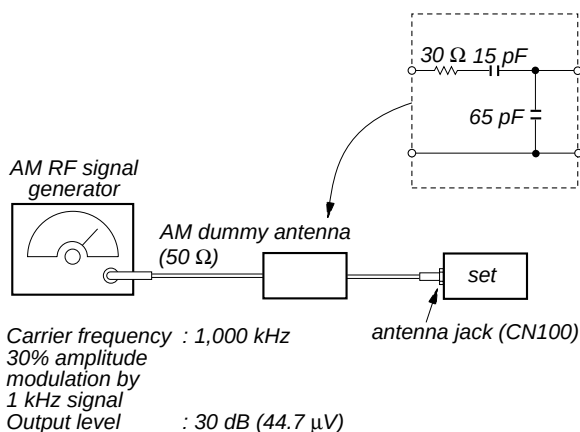
Adjustment Location: See page 13.

AM Auto Seek/Stop Level Check

Make this adjustment after “FM Auto Seek/Stop Level Adjustment”.

Setting:

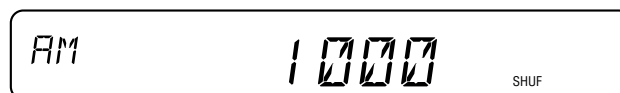
[SOURCE] → [MODE] button: AM



Procedure:

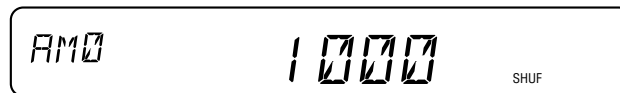
1. Set to the test mode. (See page 10)
2. Push the [SOURCE] button and set to FM.
3. Push the [MODE] button and set to AM.

Display



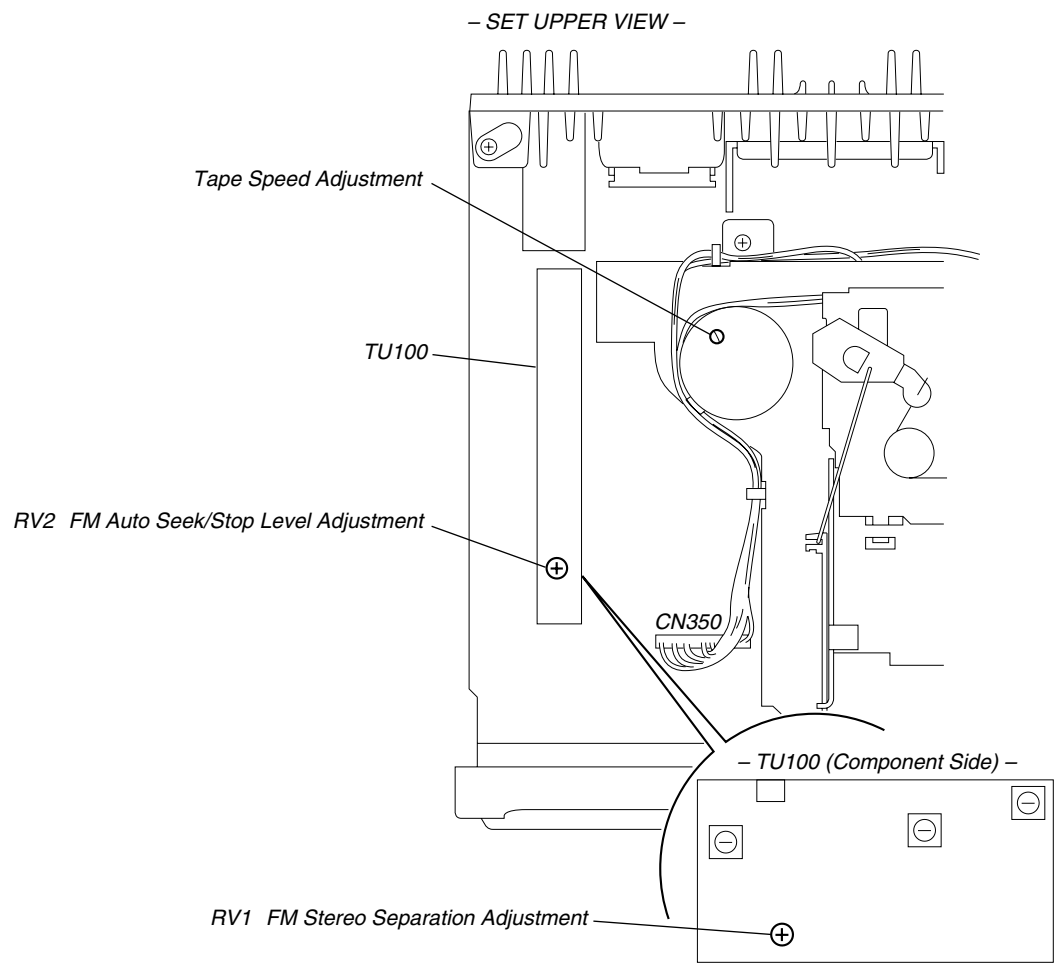
4. Check that the “AM” indication turns to “AM0” indication on the display window.

Display



Adjustment Location: See page 13.

Adjustment Location:



SECTION 5 DIAGRAMS

5-1. NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

Note on Printed Wiring Board:

-  : parts extracted from the component side.
 -  : parts extracted from the conductor side.
 -  : Pattern from the side which enables seeing.
- (The other layers' patterns are not indicated.)

Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μpF
50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}W$ or less unless otherwise specified.
-  : panel designation.
-  : B+ Line.
- Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BATT cords.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
no mark : FM
() : AM
<< >> : TAPE PLAY
* : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 M Ω).
Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
 : FM
 : AM
 : TAPE PLAY
 : BUS AUDIO IN

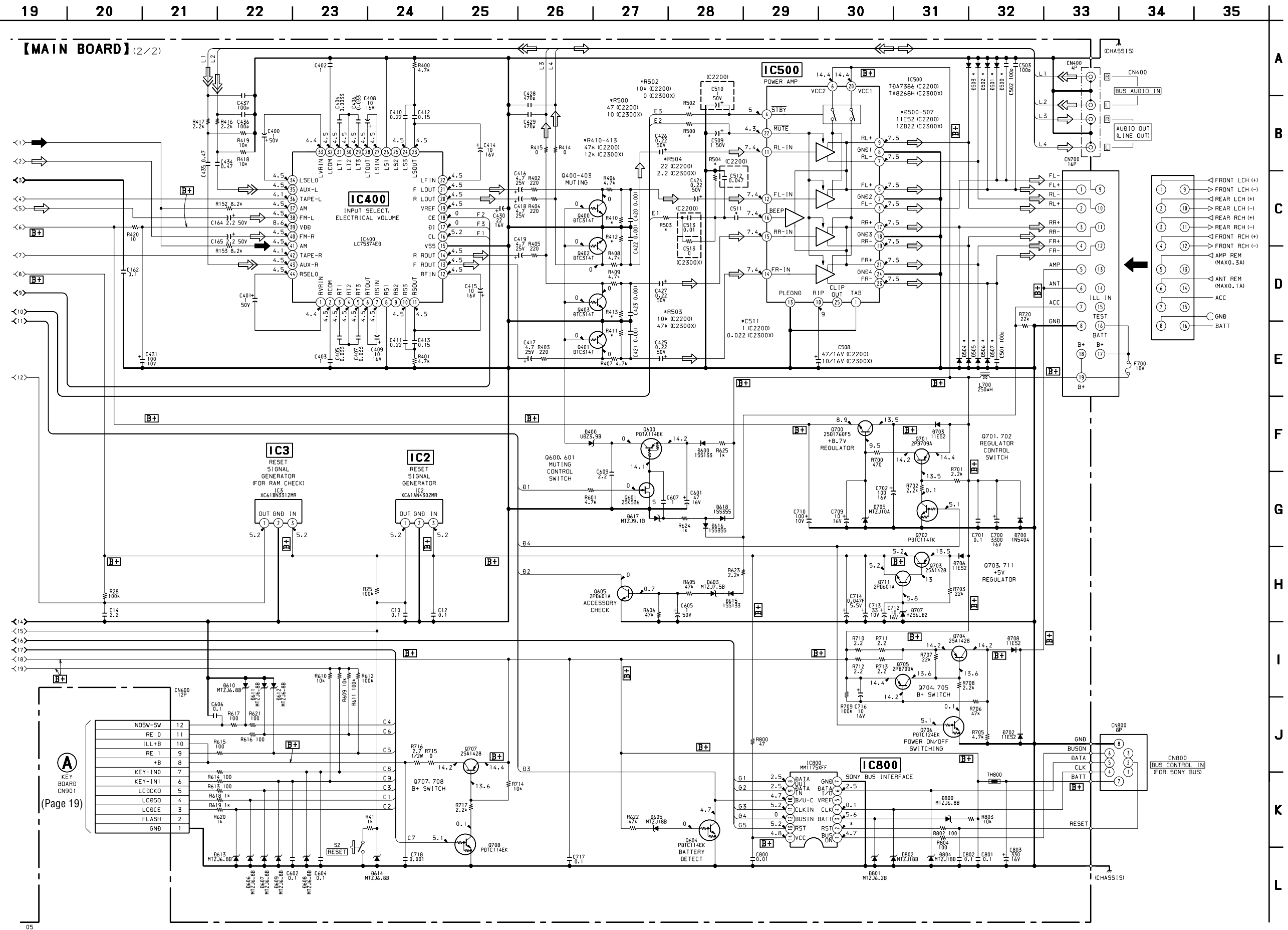
• Semiconductor Location

Ref. No.	Location
D1	K-8
D2	K-8
D100	D-12
D101	H-12
D102	I-12
D103	I-12
D300	G-5
D400	E-8
D500	D-8
D501	D-9
D502	C-9
D503	D-8
D504	D-8
D505	D-7
D506	C-7
D507	C-7
D600	E-7
D603	E-4
D605	G-3
D606	L-3
D607	K-3
D608	K-3
D609	K-3
D610	L-6
D611	L-6
D612	L-6
D613	L-3
D614	K-13
D615	E-4
D616	E-5
D617	F-7
D618	E-7
D700	D-4
D702	E-4
D703	F-5
D705	G-7
D706	J-4
D707	J-5
D708	E-4
D709	J-12
D800	D-3
D801	E-3
D802	E-3
D804	E-3
IC1	I-7
IC2	I-9
IC3	K-13
IC130	F-12
IC300	I-3
IC400	F-10
IC500	B-8
IC800	F-3
Q1	K-9
Q100	E-12
Q101	I-12
Q102	H-11
Q103	I-13
Q104	H-12
Q105	I-12
Q106	H-12
Q400	C-11
Q401	D-12
Q402	D-11
Q403	D-12
Q600	E-8
Q601	F-8
Q604	G-2
Q605	G-4
Q700	F-7
Q701	F-5
Q702	G-5
Q703	I-5
Q704	F-4
Q705	F-5
Q706	G-4
Q707	J-4
Q708	K-6
Q709	K-12
Q710	K-11
Q711	I-5





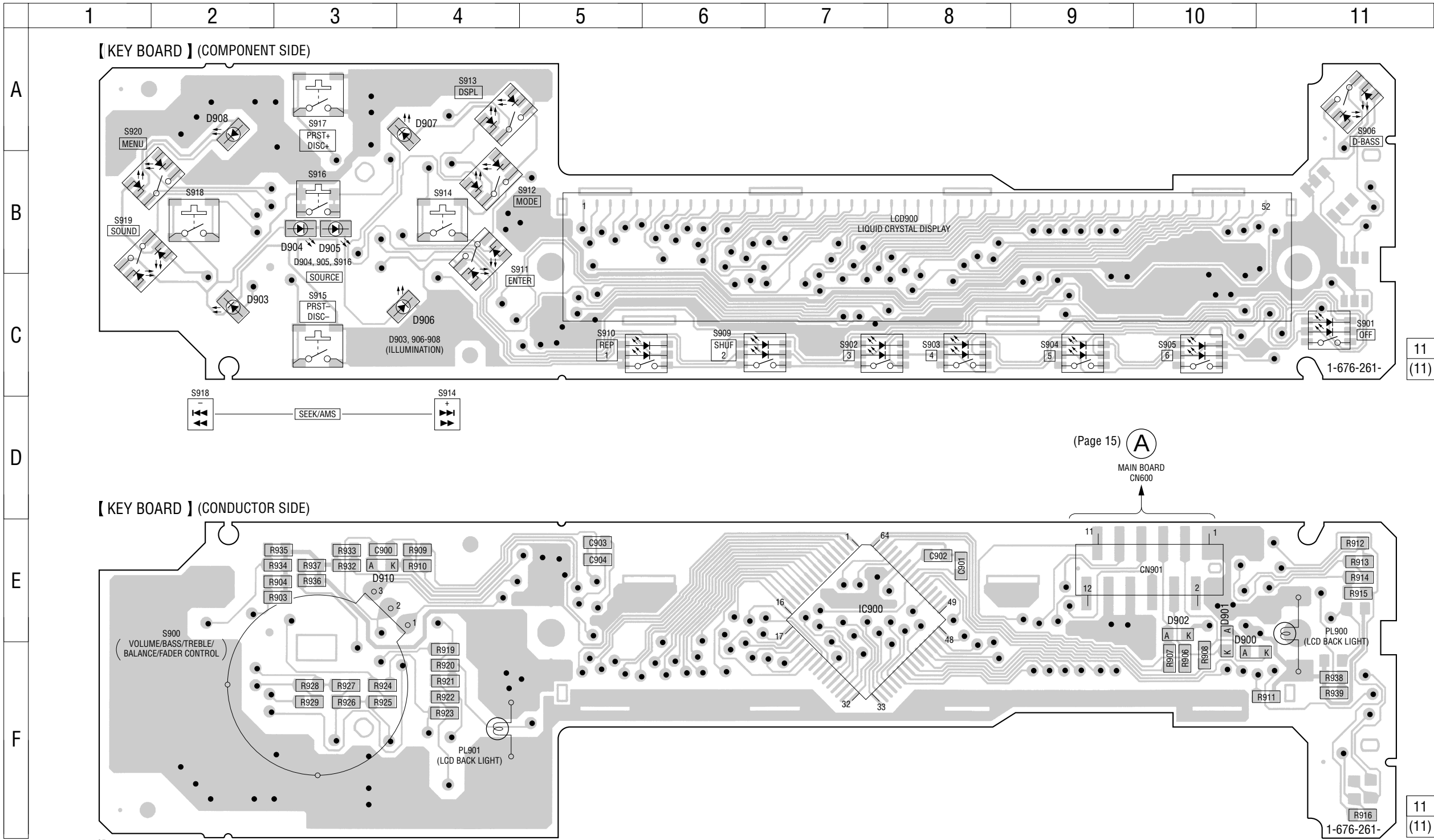
5-4. SCHEMATIC DIAGRAM – MAIN Board (2/2) – • See page 20 for IC Block Diagrams.



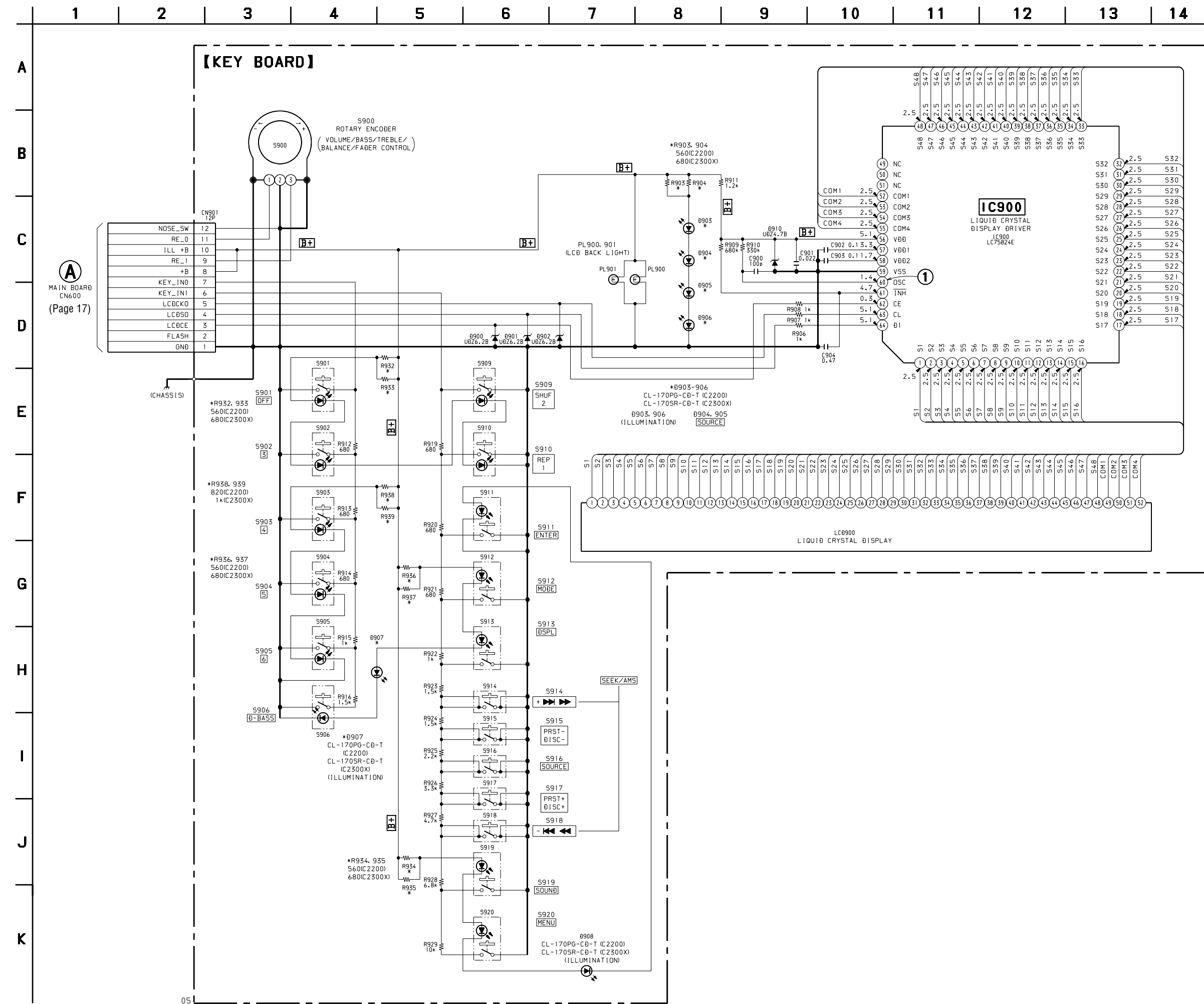
5-5. PRINTED WIRING BOARD – KEY Board –

• Semiconductor Location

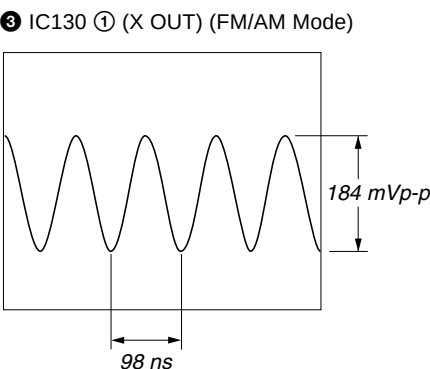
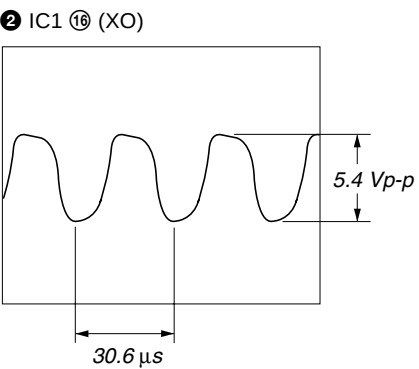
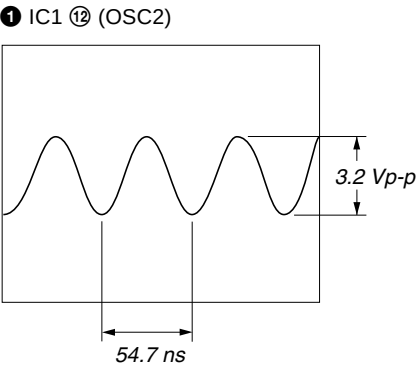
Ref. No.	Location
D900	E-10
D901	E-10
D902	E-10
D903	C-2
D904	B-3
D905	B-3
D906	C-4
D907	A-4
D908	A-2
D910	E-3
IC900	E-7



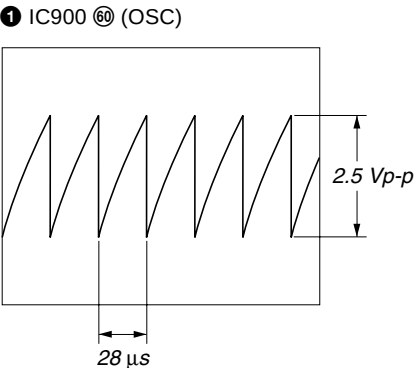
5-6. SCHEMATIC DIAGRAM – KEY Board – • See page 20 for Waveform.



• Waveforms
– MAIN Board –

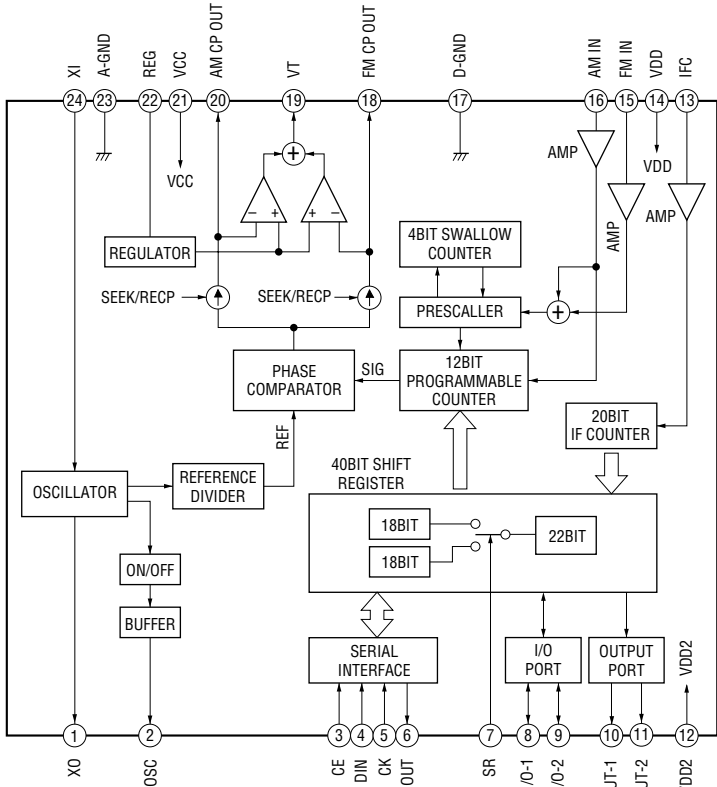


– KEY Board –

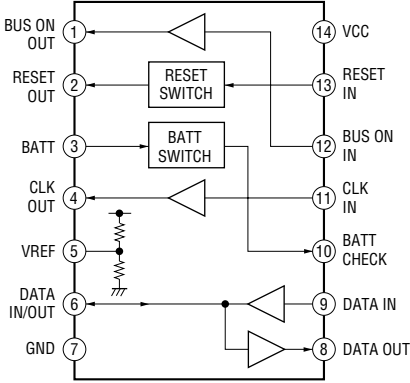


• IC Block Diagrams
– MAIN Board –

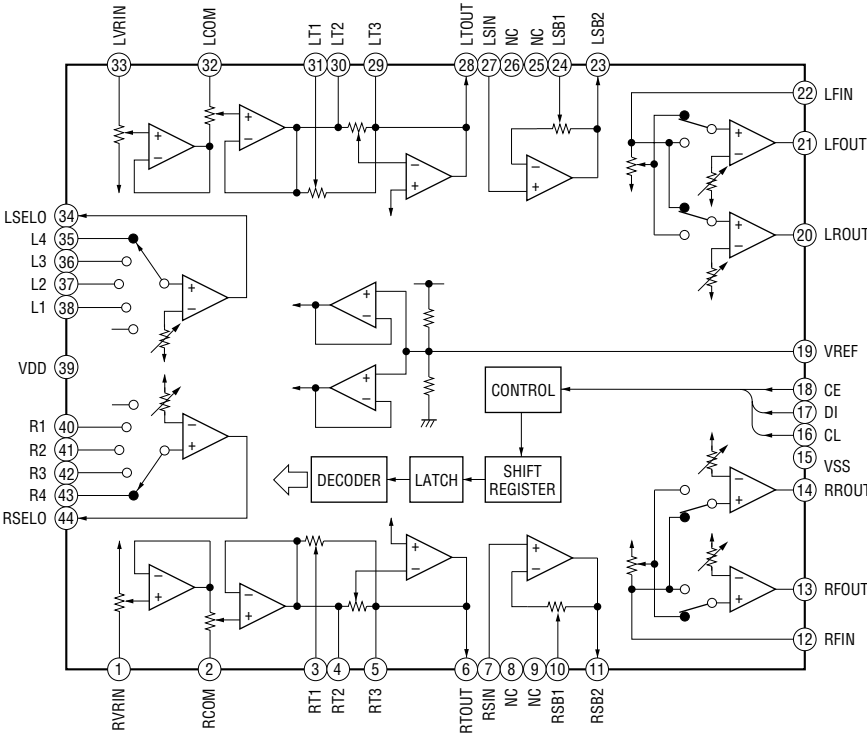
IC130 TB2118F-EL-S



IC800 MM1175XFF



IC400 LC75374E



5-7. IC PIN FUNCTION DESCRIPTION

• MAIN BOARD IC1 MN101C12GTF (SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Description
1	VREF-	I	Reference voltage (0V) input terminal (for A/D converter)
2	—	I	Not used (fixed at “L”)
3	KEY-IN1	I	Key input terminal (A/D input) S909 to S920 (SHUF 2, REP 1, ENTER, MODE, DSPL, SEEK/AMS + ▶▶▶▶▶▶▶▶▶▶ , PRST/DISC -, SOURCE, DISC/PRST +, SEEK/AMS - ◀◀◀◀◀◀◀◀◀◀ , SOUND, MENU keys input)
4	KEY-IN0	I	Key input terminal (A/D input) S901 to S906 (OFF, 3, 4, 5, 6, D-BASS keys input)
5, 6	—	I	Not used (fixed at “L”)
7	VSM	I	FM and AM signal meter voltage detection signal input from the FM/AM tuner unit (TU100) (A/D input)
8, 9	—	I	Not used (fixed at “L”)
10	VREF+	I	Reference voltage (+5V) input terminal (for A/D converter)
11	VDD	—	Power supply terminal (+5V)
12	OSC2	O	Main system clock output terminal (18.432 MHz)
13	OSC1	I	Main system clock input terminal (18.432 MHz)
14	VSS	—	Ground terminal
15	XI	I	Sub system clock input terminal (32.768 kHz)
16	XO	O	Sub system clock output terminal (32.768 kHz)
17	MMOD	I	Not used (fixed at “L”)
18	TAPE-ON	O	Capstan/reel motor (M901) drive signal output terminal “H”: motor on
19	<u>FF REW. IN</u>	I	FF/REW detection signal input terminal “L”: FF/REW mode
20	<u>TAPE IN</u>	I	Tape in detection signal input terminal “L”: tape in
21	UNI-SO	O	Serial data output to the SONY bus interface (IC800)
22	UNI-SI	I	Serial data input from the SONY bus interface (IC800)
23	UNI-CKO	O	Serial data transfer clock signal output to the SONY bus interface (IC800)
24	<u>N/R</u>	I	Tape detection signal input terminal “L”: reverse side, “H”: forward side
25	ST-IND	I/O	FM stereo broadcasting detection signal input from the FM/AM tuner unit (TU100), or forced monaural control signal output to the FM/AM tuner unit (TU100) “L” is input in the FM stereo mode, or “L” is output in the forced monaural mode
26	KEY-ACK	I	Input of acknowledge signal for the key entry Acknowledge signal is input to accept function and eject keys in the power off status On at input of “H”
27	<u>NOSE-SW</u>	I	Front panel block remove/attach detection signal input terminal “L”: front panel is attached
28	BU-IN	I	Battery detection signal input from the SONY bus interface (IC800) and battery detect circuit “L” is input at low voltage
29	—	I	Not used (fixed at “L”)
30	TEL-MUTE	I	Telephone muting signal input terminal At input of “H”, the signal is attenuated by -20 dB Not used (fixed at “L”)
31	<u>TEST-IN</u>	I	Setting terminal for the test mode “L”: test mode, Normally: fixed at “H”
32	RAM-BU	I	Internal RAM reset detection signal input from the XC61BN3312MR (IC3) Input terminal to check that RAM data are not destroyed due to low voltage This checking is made within 50 msec after reset
33	<u>RESET</u>	I	System reset signal input from the reset signal generator (IC2) and reset switch (S2) “L”: reset “L” is input for several 100 msec after power on, then it changes to “H”
34	SD	I	Station detector detection signal input from the FM/AM tuner unit (TU100) Stop level for SEEK, BTM, etc. is determined SD is present at input of “H”
35	BEEP	O	Beep sound drive signal output to the power amplifier (IC500) Used for the XR-C2300X only
36	PLL-SI	I	PLL serial data input from the FM/AM PLL (IC130)

Pin No.	Pin Name	I/O	Description
37	PLL-CKO	O	PLL serial data transfer clock signal output to the FM/AM PLL (IC130)
38	PLL-SO	O	PLL serial data output to the FM/AM PLL (IC130)
39	PLL-CE	O	PLL chip enable signal output to the FM/AM PLL (IC130) “H” active
40	—	O	Not used (open)
41	FM-ON	O	FM system power supply on/off control signal output terminal “H”: FM power on
42	LCD-SO	O	Serial data output to the liquid crystal display driver (IC900)
43	LCD-CE	O	Chip enable signal output to the liquid crystal display driver (IC900) “H” active
44	LCD-CKO	O	Serial data transfer clock signal output to the liquid crystal display driver (IC900)
45	VOL-SO	O	Serial data output to the electrical volume (IC400)
46	VOL-CE	O	Chip enable signal output to the electrical volume (IC400) “H” active
47	VOL-CKO	O	Bus clock signal output to the electrical volume (IC400)
48	AMP-MUTE	O	Muting on/off control signal output to the power amplifier (IC500) “L”: muting on
49	AMP ON	O	Standby on/off control signal output to the power amplifier (IC500) “L”: standby mode, “H”: amplifier on
50	MUTE	O	Audio line muting on/off control signal output terminal “H”: muting on
51, 52	—	O	Not used (open)
53	TU-ON	O	Tuner system power supply on/off control signal output terminal “H”: tuner power on
54, 55	—	O	Not used (open)
56	ACC-IN	I	Accessory detection signal input terminal “L”: accessory on
57 to 59	—	O	Not used (open)
60	SYS-RST	O	Reset signal output to the SONY bus interface (IC800) “L”: reset
61	BUS-ON	O	Bus on/off control signal output to the SONY bus interface (IC800) “L”: bus on
62 to 67	—	O	Not used (open)
68	POWER-ON	O	Main system power supply on/off control signal output terminal “H”: power on “L”: is output when the front panel is removed
69 to 75	—	O	Not used (open)
76	ILL	O	Power on/off control signal output of the illumination LED and liquid crystal display driver (IC900) “H”: power on
77	—	O	Not used (open)
78	RE0	I	Dial pulse input of the rotary encoder (S900) (for VOLUME/BASS/TREBLE/BALANCE/FADER control)
79	RE1	I	
80	AD-ON	O	A/D converter power control signal output terminal When the KEYACK (pin 29) that controls reference voltage power for key A/D conversion input is active, “L” is output from this terminal to enable the input
81, 82	—	O	Not used (open)
83	REL	I	Rotation detection signal input from supply reel sensor and take-up reel sensor on the deck mechanism Not used (open)
84	SEL2 COL SEL	I	Destination setting terminal “L”: XR-C2300X, “H”: XR-C2200
85, 86	SEL0, SEL1	I	Destination setting terminal (fixed at “L”)
87 to 100	—	O	Not used (open)

SECTION 6

EXPLODED VIEWS

NOTE:

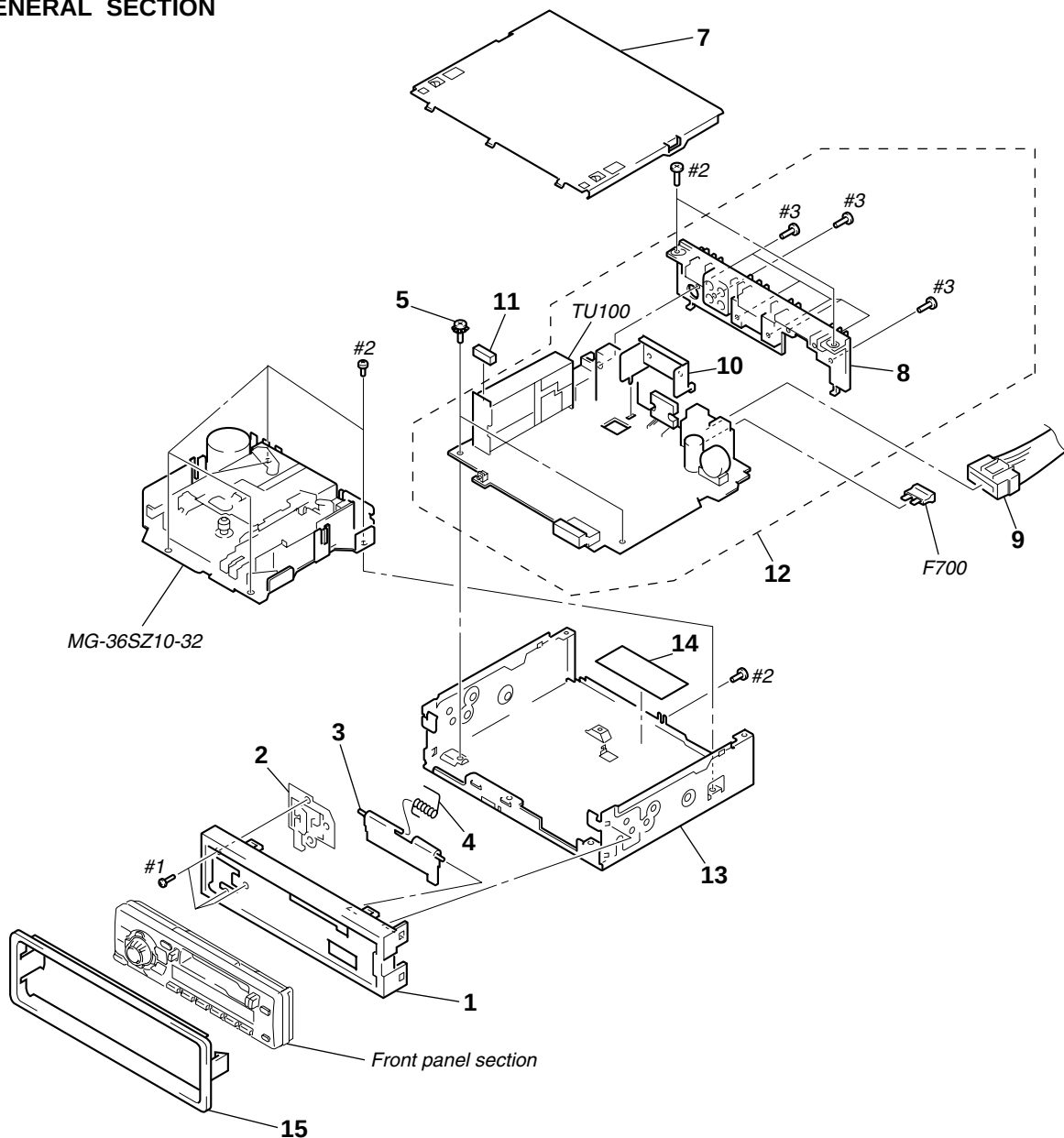
- XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
Example:
KNOB, BALANCE (WHITE) . . . (RED)

↑
Parts Color

↑
Cabinet's Color

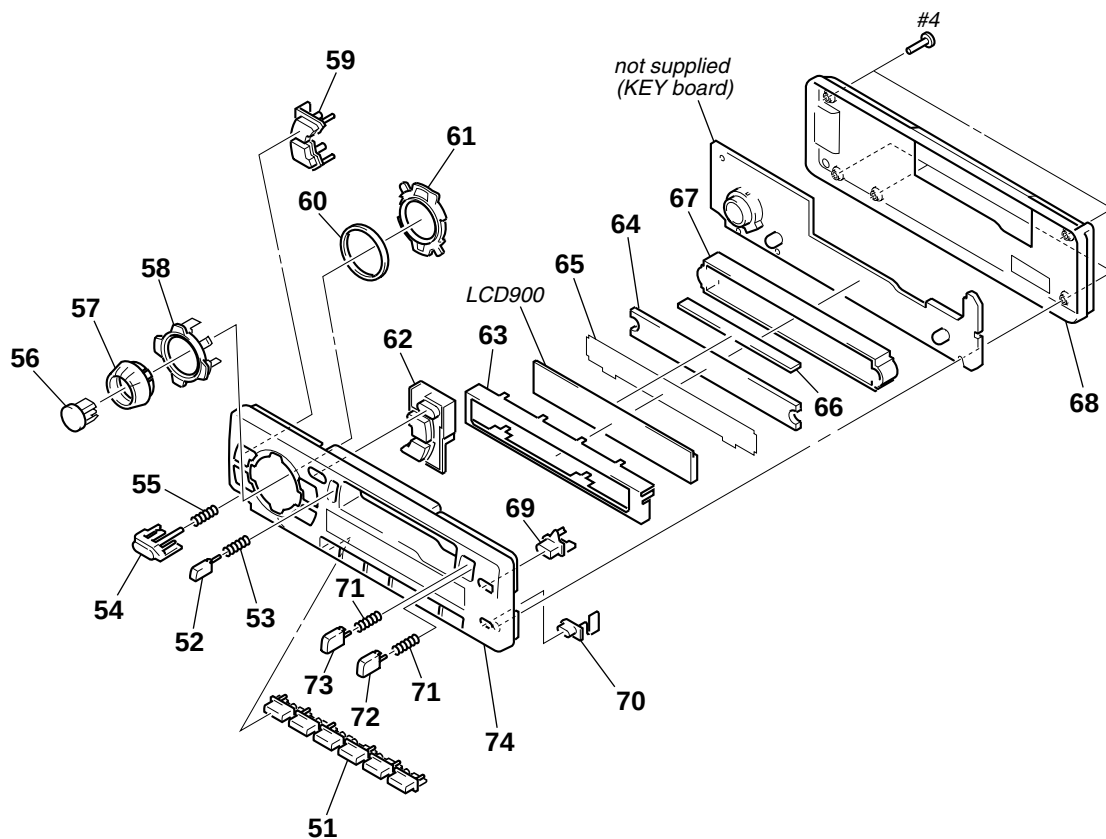
- Items marked “**” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.

(1) GENERAL SECTION



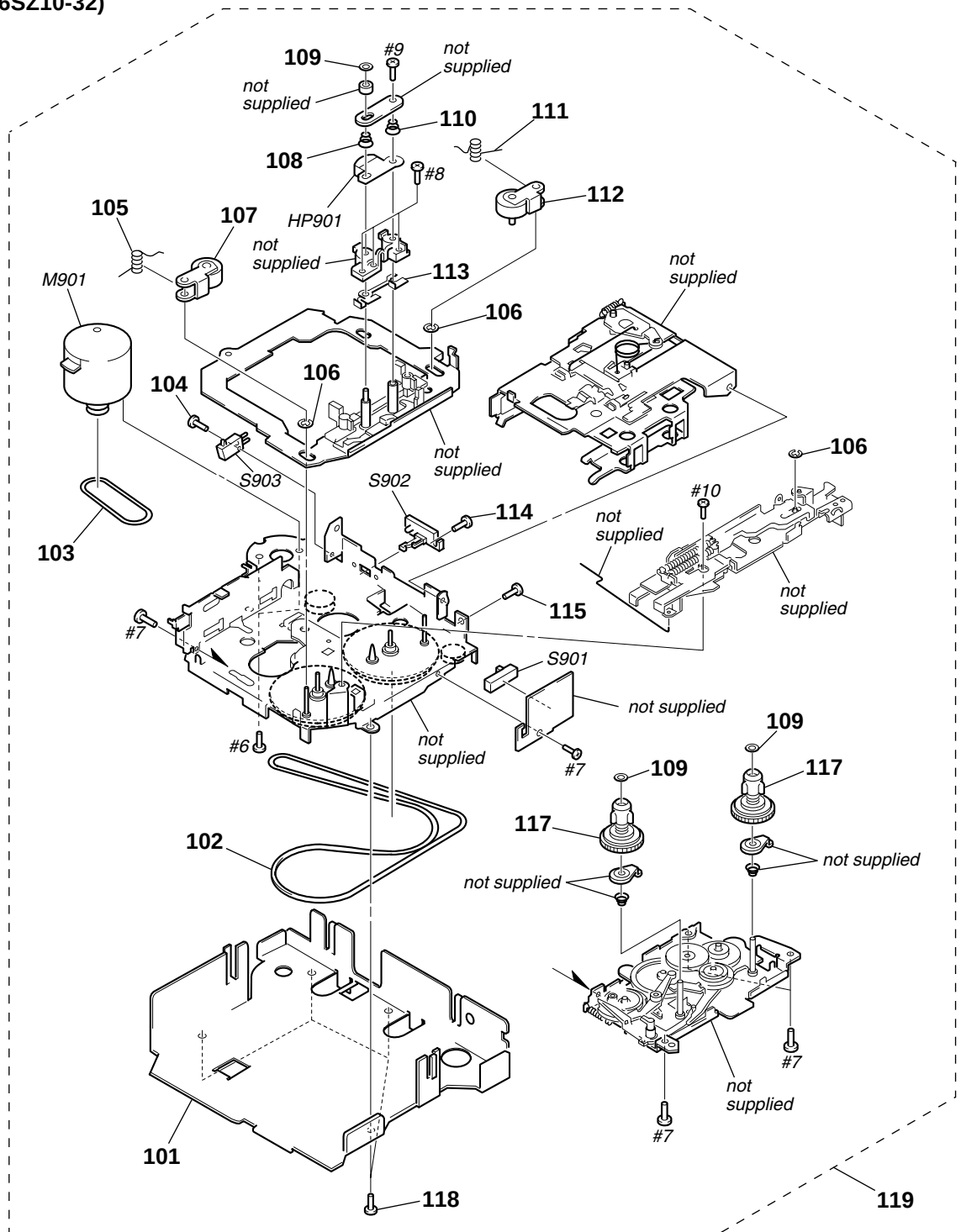
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	3-041-580-01	PANEL, SUB		* 11	3-338-263-01	CUSHION (U)	
2	X-3367-636-1	LOCK ASSY		* 12	A-3326-230-A	MAIN BOARD, COMPLETE (C2200)	
3	3-041-581-01	DOOR, CASSETTE		* 12	A-3326-418-A	MAIN BOARD, COMPLETE (C2300X)	
4	3-044-125-01	SPRING, TORSION		* 13	3-041-575-01	CHASSIS	
5	3-376-464-11	SCREW (+PTT 2.6X6), GROUND POINT		* 14	3-041-576-01	SHEET, INSULATING (C2200)	
* 7	X-3378-167-1	COVER ASSY		* 14	3-048-294-01	SHEET, INSULATING (C2300X)	
* 8	3-041-577-01	HEAT SINK		* 15	3-041-599-01	COLLAR	
9	1-776-207-31	CORD (WITH CONNECTOR) (POWER)		F700	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) (10A)	
* 10	3-041-578-01	BRACKET (IC)		TU100	1-693-458-11	TUNER UNIT (FM/AM)	

(2) FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	3-041-597-01	BUTTON (1-6) (1. 2. 3. 4. 5. 6)		* 64	3-041-589-01	PLATE, LIGHT GUIDE	
52	3-041-582-01	BUTTON (EJECT) (▲)		* 65	3-041-592-01	ILLUMINATOR	
53	3-029-327-01	SPRING (EJECT)		66	1-694-696-11	CONDUCTIVE BOARD, CONNECTION	
54	3-041-605-01	BUTTON (RELEASE)		* 67	3-041-590-01	HOLDER (LCD)	
55	3-932-475-01	SPRING (RELEASE)		68	3-041-588-01	PANEL, FRONT BACK	
56	3-041-596-01	BUTTON (SOURCE)		69	3-041-598-01	BUTTON (D-BASS)	
57	3-041-604-01	BUTTON (VOL)		70	3-041-601-11	BUTTON (OFF)	
58	3-041-603-01	BUTTON (CROSS) (DISC +, DISC -, + ►►►►, - ◄◄◄◄)		71	3-375-372-01	SPRING (F/R)	
59	3-041-595-01	BUTTON (S/M) (MENU, SOUND)		72	3-041-583-01	BUTTON (FF) (►►)	
* 60	3-043-247-01	CUSHION (CROSS)		73	3-041-584-01	BUTTON (REW) (◄◄)	
61	3-041-593-01	PLATE (RING), LIGHT GUIDE		74	X-3378-616-1	PANEL SUB ASSY (C2200)	
62	3-041-594-01	BUTTON (D/M/E) (DSPL. MODE. ENTER)		74	X-3378-654-1	PANEL SUB ASSY (C2300X)	
* 63	3-041-591-01	PLATE (LCD), GROUND		LCD900	1-803-841-11	DISPLAY PANEL, LIQUID CRYSTAL	

(3) MECHANISM DECK SECTION
(MG-36SZ10-32)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 101	3-041-579-01	BRACKET (MD)		113	3-045-906-01	ADJUSTER SHIM (X)	
102	3-045-943-01	MAIN BELT		114	3-045-952-01	+MACHINE SCREW M1.7X4	
103	3-045-945-01	SUB BELT (C)		115	3-713-786-51	SCREW +P 2X3	
104	3-045-953-01	+MACHINE SCREW M1.7X6		117	3-045-893-01	REEL SPINDLE	
105	3-045-940-01	PINCH ARM SPG (R)		118	3-046-138-01	SCREW (2.6X4) (STYLE) (CZN) +B	
106	3-045-950-01	E-RING (DIA. 2)		119	A-3220-753-A	MECHANISM DECK ASSY (MG-36SZ10-32)	
107	3-045-890-01	PINCH ARM (R)		HP901	1-500-661-11	HEAD (PLAYBACK)	
108	3-045-933-01	ADJUSTER ARM SPG (B)		M901	1-763-507-11	MOTOR (CAPSTAN/REEL)	
109	3-045-949-01	PSW (REEL) B		S901	1-771-928-11	SWITCH (SLIDE) (DIRECTION)	
110	3-045-932-01	ADJUSTER ARM SPG (A)		S902	1-771-926-11	SWITCH (LEAF) (FF/REW)	
111	3-045-939-01	PINCH ARM SPG (F)		S903	1-771-927-11	SWITCH (LEAF) (TAPE DETECT)	
112	3-045-891-01	PINCH ARM (F)					

SECTION 7 ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable

- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u: μ , for example:
uA. . : μ A. . uPA. . : μ PA. .
uPB. . : μ PB. . uPC. . : μ PC. .
uPD. . : μ PD. .
- CAPACITORS
uF: μ F
- COILS
uH: μ H

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
		KEY BOARD				< IC >	

*	3-041-589-01	PLATE, LIGHT GUIDE		IC900	8-759-366-34	IC LC75824E	
*	3-041-590-01	HOLDER (LCD)				< LIQUID CRYSTAL DISPLAY >	
*	3-041-591-01	PLATE (LCD), GROUND					
*	3-041-592-01	ILLUMINATOR		LCD900	1-803-841-11	DISPLAY PANEL, LIQUID CRYSTAL	
	1-694-696-11	CONDUCTIVE BOARD, CONNECTION				< PILOT LAMP >	
		< CAPACITOR >					
C900	1-163-251-11	CERAMIC CHIP 100PF 5% 50V		PL900	1-517-534-11	LAMP, PILOT (LCD BACK LIGHT) (C2200)	
C901	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V		PL900	1-517-977-11	LAMP, PILOT (RED) (LCD BACK LIGHT)	(C2300X)
C902	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V		PL901	1-517-534-11	LAMP, PILOT (LCD BACK LIGHT) (C2200)	
C903	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V		PL901	1-517-977-11	LAMP, PILOT (RED) (LCD BACK LIGHT)	(C2300X)
C904	1-107-823-11	CERAMIC CHIP 0.47uF 10% 16V					
		< CONNECTOR >				< RESISTOR >	
CN901	1-794-312-11	PIN, CONNECTOR 12P		R903	1-216-043-00	RES, CHIP 560 5% 1/10W	(C2200)
		< DIODE >		R903	1-216-045-00	RES, CHIP 680 5% 1/10W	(C2300X)
D900	8-719-070-58	DIODE PDZ6.2B-115		R904	1-216-043-00	RES, CHIP 560 5% 1/10W	(C2200)
D901	8-719-070-58	DIODE PDZ6.2B-115		R904	1-216-045-00	RES, CHIP 680 5% 1/10W	(C2300X)
D902	8-719-070-58	DIODE PDZ6.2B-115		R906	1-216-049-11	RES, CHIP 1K 5% 1/10W	
D903	8-719-033-14	LED CL-170PG-CD-T (ILLUMINATION)	(C2200)	R907	1-216-049-11	RES, CHIP 1K 5% 1/10W	
D903	8-719-078-39	LED CL-170SR-CD-T (ILLUMINATION)	(C2300X)	R908	1-216-049-11	RES, CHIP 1K 5% 1/10W	
D904	8-719-033-14	LED CL-170PG-CD-T (SOURCE) (C2200)		R909	1-216-117-00	RES, CHIP 680K 5% 1/10W	
D904	8-719-078-39	LED CL-170SR-CD-T (SOURCE) (C2300X)		R910	1-216-109-00	RES, CHIP 330K 5% 1/10W	
D905	8-719-033-14	LED CL-170PG-CD-T (SOURCE) (C2200)		R911	1-216-051-00	METAL CHIP 1.2k 5% 1/10W	
D905	8-719-078-39	LED CL-170SR-CD-T (SOURCE) (C2300X)		R912	1-216-647-11	METAL CHIP 680 0.5% 1/10W	
D906	8-719-033-14	LED CL-170PG-CD-T (ILLUMINATION)	(C2200)	R913	1-216-647-11	METAL CHIP 680 0.5% 1/10W	
D906	8-719-078-39	LED CL-170SR-CD-T (ILLUMINATION)	(C2300X)	R914	1-216-647-11	METAL CHIP 680 0.5% 1/10W	
D907	8-719-033-14	LED CL-170PG-CD-T (ILLUMINATION)	(C2200)	R915	1-208-437-61	RES, CHIP 1K 2% 1/10W	
D907	8-719-078-39	LED CL-170SR-CD-T (ILLUMINATION)	(C2300X)	R916	1-208-441-61	RES, CHIP 1.5K 2% 1/10W	
D908	8-719-033-14	LED CL-170PG-CD-T (ILLUMINATION)	(C2200)	R919	1-216-647-11	METAL CHIP 680 0.5% 1/10W	
D908	8-719-078-39	LED CL-170SR-CD-T (ILLUMINATION)	(C2300X)	R920	1-216-647-11	METAL CHIP 680 0.5% 1/10W	
D908	8-719-033-14	LED CL-170PG-CD-T (ILLUMINATION)	(C2200)	R921	1-216-647-11	METAL CHIP 680 0.5% 1/10W	
D908	8-719-078-39	LED CL-170SR-CD-T (ILLUMINATION)	(C2300X)	R922	1-208-437-61	RES, CHIP 1K 2% 1/10W	
D908	8-719-033-14	LED CL-170PG-CD-T (ILLUMINATION)	(C2200)	R923	1-208-441-61	RES, CHIP 1.5K 2% 1/10W	
D908	8-719-078-39	LED CL-170SR-CD-T (ILLUMINATION)	(C2300X)	R924	1-208-441-61	RES, CHIP 1.5K 2% 1/10W	
D908	8-719-033-14	LED CL-170PG-CD-T (ILLUMINATION)	(C2200)	R925	1-216-659-11	METAL CHIP 2.2K 0.5% 1/10W	
D908	8-719-078-39	LED CL-170SR-CD-T (ILLUMINATION)	(C2300X)	R926	1-208-449-61	RES, CHIP 3.3K 2% 1/10W	
D908	8-719-033-14	LED CL-170PG-CD-T (ILLUMINATION)	(C2200)	R927	1-208-453-61	RES, CHIP 4.7K 2% 1/10W	
D908	8-719-078-39	LED CL-170SR-CD-T (ILLUMINATION)	(C2300X)	R928	1-216-671-11	METAL CHIP 6.8K 0.5% 1/10W	
D910	8-719-976-96	DIODE DTZ4.7C					

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R929	1-208-462-61	RES, CHIP	10K 2% 1/10W	S912	1-762-619-21	SWITCH, KEY BOARD (WITH LED) (MODE)	(C2200)
R932	1-216-043-00	RES, CHIP	560 5% 1/10W (C2200)	S912	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (MODE)	(C2300X)
R932	1-216-045-00	RES, CHIP	680 5% 1/10W (C2300X)	S913	1-762-619-21	SWITCH, KEY BOARD (WITH LED) (DSPL)	(C2200)
R933	1-216-043-00	RES, CHIP	560 5% 1/10W (C2200)	S913	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (DSPL)	(C2300X)
R933	1-216-045-00	RES, CHIP	680 5% 1/10W (C2300X)	S914	1-771-027-21	SWITCH, KEY BOARD (SEEK/AMS + ►►► ►►)	
R934	1-216-043-00	RES, CHIP	560 5% 1/10W (C2200)	S915	1-771-027-21	SWITCH, KEY BOARD (PRST -, DISC -)	
R934	1-216-045-00	RES, CHIP	680 5% 1/10W (C2300X)	S916	1-771-884-21	SWITCH, TACTILE (SOURCE)	
R935	1-216-043-00	RES, CHIP	560 5% 1/10W (C2200)	S917	1-771-027-21	SWITCH, KEY BOARD (PRST +, DISC +)	
R935	1-216-045-00	RES, CHIP	680 5% 1/10W (C2300X)	S918	1-771-027-21	SWITCH, KEY BOARD (SEEK/AMS - ◄◄◄ ◄◄)	
R936	1-216-043-00	RES, CHIP	560 5% 1/10W (C2200)	S919	1-762-619-21	SWITCH, KEY BOARD (WITH LED) (SOUND)	(C2200)
R936	1-216-045-00	RES, CHIP	680 5% 1/10W (C2300X)	S919	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (SOUND)	(C2300X)
R937	1-216-043-00	RES, CHIP	560 5% 1/10W (C2200)	S920	1-762-619-21	SWITCH, KEY BOARD (WITH LED) (MENU)	(C2200)
R937	1-216-045-00	RES, CHIP	680 5% 1/10W (C2300X)	S920	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (MENU)	(C2300X)
R938	1-216-047-00	RES, CHIP	820 5% 1/10W (C2200)	*****			
R938	1-216-049-11	RES, CHIP	1K 5% 1/10W (C2300X)	*	A-3326-230-A	MAIN BOARD, COMPLETE (C2200)	
R939	1-216-047-00	RES, CHIP	820 5% 1/10W (C2200)	*	A-3326-418-A	MAIN BOARD, COMPLETE (C2300X)	
R939	1-216-049-11	RES, CHIP	1K 5% 1/10W (C2300X)	*****			
< SWITCH >				*	3-041-577-01	HEAT SINK	
S900	1-475-014-11	ENCODER, ROTARY (VOLUME/BASS/TREBLE/BALANCE/FADER CONTROL)		*	3-041-578-01	BRACKET (IC)	
S901	1-771-609-11	SWITCH, TACTILE (WITH LED) (OFF) (C2200)			7-685-794-09	SCREW +PTT 2.6X10 (S)	
S901	1-771-883-21	SWITCH, TACTILE (WITH LED) (OFF) (C2300X)		< CAPACITOR/SHORT >			
S902	1-771-609-11	SWITCH, TACTILE (WITH LED) (3) (C2200)		C2	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V
S902	1-771-883-21	SWITCH, TACTILE (WITH LED) (3) (C2300X)		C3	1-124-584-00	ELECT	100uF 20% 10V
S903	1-771-609-11	SWITCH, TACTILE (WITH LED) (4) (C2200)		C4	1-163-231-11	CERAMIC CHIP	15PF 5% 50V
S903	1-771-883-21	SWITCH, TACTILE (WITH LED) (4) (C2300X)		C5	1-163-231-11	CERAMIC CHIP	15PF 5% 50V
S904	1-771-609-11	SWITCH, TACTILE (WITH LED) (5) (C2200)		C6	1-163-234-11	CERAMIC CHIP	20PF 5% 50V
S904	1-771-883-21	SWITCH, TACTILE (WITH LED) (5) (C2300X)		C7	1-163-234-11	CERAMIC CHIP	20PF 5% 50V
S905	1-771-609-11	SWITCH, TACTILE (WITH LED) (6) (C2200)		C8	1-163-231-11	CERAMIC CHIP	15PF 5% 50V
S905	1-771-883-21	SWITCH, TACTILE (WITH LED) (6) (C2300X)		C10	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V
S906	1-762-737-11	SWITCH, KEY BOARD (LED) (D-BASS)		C12	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V
S909	1-771-609-11	SWITCH, TACTILE (WITH LED) (SHUF 2)		C13	1-163-133-11	CERAMIC CHIP	470PF 5% 50V
S909	1-771-883-21	SWITCH, TACTILE (WITH LED) (SHUF 2)		C14	1-115-565-11	CERAMIC CHIP	2.2uF 10% 10V
S910	1-771-609-11	SWITCH, TACTILE (WITH LED) (REP 1)		C15	1-163-133-11	CERAMIC CHIP	470PF 5% 50V
S910	1-771-883-21	SWITCH, TACTILE (WITH LED) (REP 1)		C16	1-163-021-11	CERAMIC CHIP	0.01uF 10% 50V
S911	1-762-619-21	SWITCH, KEY BOARD (WITH LED) (ENTER)		C101	1-163-037-11	CERAMIC CHIP	0.022uF 10% 25V
S911	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (ENTER)		C102	1-163-021-11	CERAMIC CHIP	0.01uF 10% 50V
				C103	1-163-037-11	CERAMIC CHIP	0.022uF 10% 25V
				C105	1-163-037-11	CERAMIC CHIP	0.022uF 10% 25V
				C108	1-163-021-11	CERAMIC CHIP	0.01uF 10% 50V
				C109	1-163-037-11	CERAMIC CHIP	0.022uF 10% 25V
				C110	1-126-176-11	ELECT	220uF 20% 10V
				C111	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V
				C113	1-126-157-11	ELECT	10uF 20% 16V
				C114	1-216-295-00	SHORT	0
				C115	1-216-295-00	SHORT	0
				C116	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V
				C118	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V
				C120	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V
				C121	1-124-234-00	ELECT	22uF 20% 16V

MAIN

Ref. No.	Part No.	Description	Remark		
C123	1-104-760-11	CERAMIC CHIP	0.047uF	10%	50V
C124	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C130	1-163-085-00	CERAMIC CHIP	2PF	0.25PF	50V
C131	1-163-224-11	CERAMIC CHIP	7PF	0.5PF	50V
C132	1-163-224-11	CERAMIC CHIP	7PF	0.5PF	50V
C133	1-104-760-11	CERAMIC CHIP	0.047uF	10%	50V
C134	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C135	1-104-760-11	CERAMIC CHIP	0.047uF	10%	50V
C136	1-163-017-00	CERAMIC CHIP	0.0047uF	10%	50V
C137	1-104-760-11	CERAMIC CHIP	0.047uF	10%	50V
C138	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C139	1-104-760-11	CERAMIC CHIP	0.047uF	10%	50V
C140	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C141	1-126-157-11	ELECT	10uF	20%	16V
C142	1-126-157-11	ELECT	10uF	20%	16V
C143	1-124-234-00	ELECT	22uF	20%	16V
C144	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C145	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C146	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C147	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C148	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C151	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C152	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C160	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C161	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C162	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C164	1-124-257-00	ELECT	2.2uF	20%	50V
C165	1-124-257-00	ELECT	2.2uF	20%	50V
C300	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C301	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C302	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C303	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C304	1-124-584-00	ELECT	100uF	20%	10V
C305	1-124-584-00	ELECT	100uF	20%	10V
C306	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C307	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C308	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C309	1-124-228-11	ELECT	22uF	20%	10V
C310	1-124-229-00	ELECT	33uF	20%	10V
C311	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C400	1-104-942-11	ELECT	1uF	20%	50V
C401	1-104-942-11	ELECT	1uF	20%	50V
C402	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C403	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C404	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
C405	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
C406	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C407	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C408	1-126-157-11	ELECT	10uF	20%	16V
C409	1-126-157-11	ELECT	10uF	20%	16V
C410	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C411	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C412	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C413	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C414	1-126-157-11	ELECT	10uF	20%	16V
C415	1-126-157-11	ELECT	10uF	20%	16V
C416	1-126-163-11	ELECT	4.7uF	20%	50V

Ref. No.	Part No.	Description	Remark		
C417	1-126-163-11	ELECT	4.7uF	20%	50V
C418	1-126-163-11	ELECT	4.7uF	20%	50V
C419	1-126-163-11	ELECT	4.7uF	20%	50V
C420	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C421	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C422	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C423	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C424	1-124-464-11	ELECT	0.22uF	20%	50V
C425	1-124-464-11	ELECT	0.22uF	20%	50V
C426	1-124-464-11	ELECT	0.22uF	20%	50V
C427	1-124-464-11	ELECT	0.22uF	20%	50V
C428	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C429	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C430	1-124-234-00	ELECT	22uF	20%	16V
C431	1-124-584-00	ELECT	100uF	20%	10V
C434	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C435	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C436	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C437	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C501	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C502	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C503	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C508	1-124-589-11	ELECT	47uF	20%	16V (C2200)
C508	1-126-157-11	ELECT	10uF	20%	16V (C2300X)
C509	1-104-942-11	ELECT	1uF	20%	50V
C510	1-104-942-11	ELECT	1uF	20%	50V (C2200)
C511	1-109-982-11	CERAMIC CHIP	1uF	10%	10V (C2200)
C511	1-163-037-11	CERAMIC CHIP	0.022uF	10%	50V (C2300X)
C512	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V (C2200)
C513	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V (C2200)
C513	1-216-295-00	SHORT	0 (C2300X)		
C601	1-124-589-11	ELECT	47uF	20%	16V
C602	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C603	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C604	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C605	1-104-942-11	ELECT	1uF	20%	50V
C606	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C607	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C609	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C700	1-126-936-11	ELECT	3300uF	20%	16V
C701	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C702	1-119-774-11	ELECT	100uF	20%	16V
C709	1-126-157-11	ELECT	10uF	20%	16V
C710	1-126-382-11	ELECT	100uF	20%	16V
C712	1-126-157-11	ELECT	10uF	20%	16V
C713	1-124-229-00	ELECT	33uF	20%	10V
C714	1-125-701-11	DOUBLE LAYER	0.047F		5.5V
C716	1-126-157-11	ELECT	10uF	20%	16V
C717	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C718	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C724	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C800	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C801	1-163-038-00	CERAMIC CHIP 0.1uF	25V	D705	8-719-048-54	DIODE MTZJ-T-77-10A	
C802	1-163-038-00	CERAMIC CHIP 0.1uF	25V	D706	8-719-200-82	DIODE 11ES2	
C803	1-126-940-11	ELECT 330uF 20%	25V				
< CONNECTOR/JACK >				D707	8-719-935-40	DIODE HZS6B2LTD	
CN100	1-764-808-21	JACK (ANT) (FM/AM ANTENNA)		D708	8-719-200-82	DIODE 11ES2	
* CN300	1-564-705-11	PIN, CONNECTOR (PC BOARD) 3P		D709	8-719-200-82	DIODE 11ES2	
* CN350	1-573-486-11	PIN, CONNECTOR (PC BOARD) 8P		D800	8-719-109-97	DIODE RD6.8ES-B2	
CN400	1-774-699-12	JACK, PIN 4P		D801	8-719-109-93	DIODE RD6.2ESB2	
		(BUS AUDIO IN, AUDIO OUT (LINE OUT))					
CN600	1-764-423-11	PIN, CONNECTOR 12P		D802	8-719-110-49	DIODE RD18ES-B2	
				D804	8-719-110-49	DIODE RD18ES-B2	
CN700	1-774-701-11	PIN, CONNECTOR 16P		< DISCHARGE GAP >			
CN800	1-580-907-31	PLUG, CONNECTOR (BUS CONTROL IN)		DSP100	1-519-504-11	GAP, DISCHARGE	
< DIODE >				< FUSE >			
D1	8-719-991-33	DIODE 1SS133T-77		F700	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
D2	8-719-991-33	DIODE 1SS133T-77		< IC >			
D100	8-719-988-61	DIODE 1SS355TE-17		IC1	8-759-663-57	IC MN101C12GTF	
D101	8-719-109-89	DIODE RD5.6ESB2		IC2	8-759-574-61	IC XC61AN4302MR	
D102	8-719-991-33	DIODE 1SS133T-77		IC3	8-759-574-59	IC XC61BN3312MR	
D103	8-719-988-61	DIODE 1SS355TE-17		IC130	8-759-586-59	IC TB2118F-EL-S	
D300	8-719-991-33	DIODE 1SS133T-77		IC300	8-759-924-46	IC BA4560F	
D400	8-719-109-72	DIODE RD3.9ES-B2					
D500	8-719-079-42	DIODE 1ZB22 (TPA3) (C2300X)		IC400	8-759-487-82	IC LC75374E	
D500	8-719-200-82	DIODE 11ES2 (C2200)		IC500	8-759-486-44	IC TDA7386 (C2200)	
D501	8-719-079-42	DIODE 1ZB22 (TPA3) (C2300X)		IC500	8-759-663-88	IC TA8268H (C2300X)	
D501	8-719-200-82	DIODE 11ES2 (C2200)		IC800	8-759-096-16	IC MM1175XFF	
D502	8-719-079-42	DIODE 1ZB22 (TPA3) (C2300X)		< SHORT >			
D502	8-719-200-82	DIODE 11ES2 (C2200)		JC1	1-216-296-00	SHORT 0	
D503	8-719-079-42	DIODE 1ZB22 (TPA3) (C2300X)		JC2	1-216-296-00	SHORT 0	
D503	8-719-200-82	DIODE 11ES2 (C2200)		< COIL >			
D504	8-719-079-42	DIODE 1ZB22 (TPA3) (C2300X)		L1	1-410-509-11	INDUCTOR 10uH	
D504	8-719-200-82	DIODE 11ES2 (C2200)		L100	1-416-636-51	COIL (AM ANT)	
D505	8-719-079-42	DIODE 1ZB22 (TPA3) (C2300X)		L102	1-410-515-11	INDUCTOR 33uH	
D505	8-719-200-82	DIODE 11ES2 (C2200)		L103	1-410-509-11	INDUCTOR 10uH	
D506	8-719-079-42	DIODE 1ZB22 (TPA3) (C2300X)		L130	1-410-750-41	INDUCTOR 0.47uH	
D506	8-719-200-82	DIODE 11ES2 (C2200)		L700	1-419-476-11	INDUCTOR 250uH	
D507	8-719-079-42	DIODE 1ZB22 (TPA3) (C2300X)		< TRANSISTOR >			
D507	8-719-200-82	DIODE 11ES2 (C2200)		Q1	8-729-901-46	TRANSISTOR DTA114YK	
D600	8-719-991-33	DIODE 1SS133T-77		Q100	8-729-043-28	TRANSISTOR PDT124EK-115	
D603	8-719-921-63	DIODE MTZJ-7.5B		Q101	8-729-043-28	TRANSISTOR PDT124EK-115	
D605	8-719-110-49	DIODE RD18ES-B2		Q102	8-729-901-46	TRANSISTOR DTA114YK	
D606	8-719-109-97	DIODE RD6.8ES-B2		Q103	8-729-904-63	TRANSISTOR DTB123YK	
D607	8-719-109-97	DIODE RD6.8ES-B2					
D608	8-719-109-97	DIODE RD6.8ES-B2		Q104	8-729-205-96	TRANSISTOR 2SC3668	
D609	8-719-109-97	DIODE RD6.8ES-B2		Q105	8-729-043-28	TRANSISTOR PDT124EK-115	
D610	8-719-109-97	DIODE RD6.8ES-B2		Q106	8-729-901-46	TRANSISTOR DTA114YK	
D611	8-719-109-97	DIODE RD6.8ES-B2		Q400	8-729-920-21	TRANSISTOR DTC314TKH04	
D612	8-719-109-97	DIODE RD6.8ES-B2		Q401	8-729-920-21	TRANSISTOR DTC314TKH04	
D613	8-719-109-97	DIODE RD6.8ES-B2					
D614	8-719-109-97	DIODE RD6.8ES-B2		Q402	8-729-920-21	TRANSISTOR DTC314TKH04	
D615	8-719-991-33	DIODE 1SS133T-77		Q403	8-729-920-21	TRANSISTOR DTC314TKH04	
D616	8-719-988-61	DIODE 1SS355TE-17		Q600	8-729-043-32	TRANSISTOR PDTA114EK-115	
D617	8-719-929-15	DIODE HZS9.1NB2		Q601	8-729-809-73	FET 2SK536-TB	
D618	8-719-988-61	DIODE 1SS355TE-17		Q604	8-729-043-27	TRANSISTOR PDT124EK-115	
D700	8-719-049-38	DIODE 1N5404TU					
D702	8-719-200-82	DIODE 11ES2		Q605	8-729-422-33	TRANSISTOR 2PD601AR-115	
D703	8-719-200-82	DIODE 11ES2					

MAIN

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
Q700	8-729-921-48	TRANSISTOR	2SD1760F5-TRPQR			R116	1-216-298-11	RES, CHIP	2.2	5%	1/10W
Q701	8-729-216-22	TRANSISTOR	2SA1162-G			R130	1-216-049-11	RES, CHIP	1K	5%	1/10W
Q702	8-729-043-30	TRANSISTOR	PDTC114TK-115			R131	1-216-049-11	RES, CHIP	1K	5%	1/10W
Q703	8-729-205-95	TRANSISTOR	2SA1428-Y								
Q704	8-729-205-95	TRANSISTOR	2SA1428-Y			R132	1-216-049-11	RES, CHIP	1K	5%	1/10W
Q705	8-729-216-22	TRANSISTOR	2SA1162-G			R133	1-216-049-11	RES, CHIP	1K	5%	1/10W
Q706	8-729-043-28	TRANSISTOR	PDTC124EK-115			R134	1-216-073-00	METAL CHIP	10K	5%	1/10W
Q707	8-729-205-95	TRANSISTOR	2SA1428-Y			R135	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
Q708	8-729-043-27	TRANSISTOR	PDTC114EK-115			R136	1-216-075-00	METAL CHIP	12K	5%	1/10W
Q709	8-729-205-95	TRANSISTOR	2SA1428-Y								
Q710	8-729-043-27	TRANSISTOR	PDTC114EK-115			R137	1-216-077-00	RES, CHIP	15K	5%	1/10W
Q711	8-729-422-33	TRANSISTOR	2PD601AR-115			R139	1-216-049-11	RES, CHIP	1K	5%	1/10W
< RESISTOR >						R140	1-216-001-00	RES, CHIP	10	5%	1/10W
R4	1-216-814-11	METAL CHIP	270	5%	1/16W	R141	1-216-089-00	RES, CHIP	47K	5%	1/10W
R5	1-216-813-11	METAL CHIP	220	5%	1/16W	R142	1-216-025-00	RES, CHIP	100	5%	1/10W
R9	1-249-417-11	CARBON	1K	5%	1/4W						
R10	1-216-845-11	METAL CHIP	100K	5%	1/16W	R143	1-249-413-11	CARBON	470	5%	1/4W
R11	1-216-845-11	METAL CHIP	100K	5%	1/16W	R150	1-216-296-00	SHORT	0		
R12	1-249-417-11	CARBON	1K	5%	1/4W	R152	1-249-428-11	CARBON	8.2K	5%	1/4W
R13	1-249-417-11	CARBON	1K	5%	1/4W	R153	1-249-428-11	CARBON	8.2K	5%	1/4W
R14	1-249-417-11	CARBON	1K	5%	1/4W	R160	1-216-075-00	METAL CHIP	12K	5%	1/10W
R15	1-249-417-11	CARBON	1K	5%	1/4W						
R16	1-249-417-11	CARBON	1K	5%	1/4W	R161	1-216-075-00	METAL CHIP	12K	5%	1/10W
R17	1-216-049-11	RES, CHIP	1K	5%	1/10W	R162	1-249-417-11	CARBON	1K	5%	1/4W
R18	1-216-845-11	METAL CHIP	100K	5%	1/16W	R163	1-249-417-11	CARBON	1K	5%	1/4W
R19	1-216-845-11	METAL CHIP	100K	5%	1/16W	R300	1-216-089-00	RES, CHIP	47K	5%	1/10W
R20	1-216-845-11	METAL CHIP	100K	5%	1/16W	R301	1-216-089-00	RES, CHIP	47K	5%	1/10W
R21	1-216-049-11	RES, CHIP	1K	5%	1/10W						
R22	1-249-417-11	CARBON	1K	5%	1/4W	R302	1-216-013-00	METAL CHIP	33	5%	1/10W
R23	1-249-417-11	CARBON	1K	5%	1/4W	R303	1-216-013-00	METAL CHIP	33	5%	1/10W
R25	1-216-845-11	METAL CHIP	100K	5%	1/16W	R304	1-216-115-00	METAL CHIP	560K	5%	1/10W
R26	1-216-845-11	METAL CHIP	100K	5%	1/16W	R305	1-216-115-00	METAL CHIP	560K	5%	1/10W
R28	1-216-845-11	METAL CHIP	100K	5%	1/16W	R306	1-216-077-00	RES, CHIP	15K	5%	1/10W
R32	1-216-845-11	METAL CHIP	100K	5%	1/16W						
R33	1-216-845-11	METAL CHIP	100K	5%	1/16W	R307	1-216-077-00	RES, CHIP	15K	5%	1/10W
R34	1-216-845-11	METAL CHIP	100K	5%	1/16W	R308	1-249-417-11	CARBON	1K	5%	1/4W
R38	1-216-845-11	METAL CHIP	100K	5%	1/16W	R309	1-249-417-11	CARBON	1K	5%	1/4W
R39	1-216-845-11	METAL CHIP	100K	5%	1/16W	R310	1-216-073-00	METAL CHIP	10K	5%	1/10W
R40	1-216-049-11	RES, CHIP	1K	5%	1/10W	R311	1-216-073-00	METAL CHIP	10K	5%	1/10W
R41	1-216-049-11	RES, CHIP	1K	5%	1/10W						
R45	1-216-841-11	METAL CHIP	47K	5%	1/16W	R312	1-249-393-11	CARBON	10	5%	1/4W
R47	1-216-841-11	METAL CHIP	47K	5%	1/16W	R400	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R49	1-216-089-00	RES, CHIP	47K	5%	1/10W	R401	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
					(C2200)	R402	1-216-182-00	RES, CHIP	220	5%	1/8W
R50	1-216-841-11	METAL CHIP	47K	5%	1/16W	R403	1-216-033-00	METAL CHIP	220	5%	1/10W
					(C2300X)						
R100	1-216-049-11	RES, CHIP	1K	5%	1/10W	R404	1-216-182-00	RES, CHIP	220	5%	1/8W
R101	1-216-049-11	RES, CHIP	1K	5%	1/10W	R405	1-216-182-00	RES, CHIP	220	5%	1/8W
R102	1-216-029-00	METAL CHIP	150	5%	1/10W	R406	1-216-214-00	RES, CHIP	4.7K	5%	1/8W
R104	1-216-089-00	RES, CHIP	47K	5%	1/10W	R407	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R106	1-216-049-11	RES, CHIP	1K	5%	1/10W	R408	1-216-214-00	RES, CHIP	4.7K	5%	1/8W
R107	1-249-413-11	CARBON	470	5%	1/4W						
R109	1-216-073-00	METAL CHIP	10K	5%	1/10W	R409	1-216-214-00	RES, CHIP	4.7K	5%	1/8W
R110	1-216-295-00	SHORT	0			R410	1-216-075-00	METAL CHIP	12K	5%	1/10W
R111	1-216-057-00	METAL CHIP	2.2K	5%	1/10W						
R112	1-216-053-00	METAL CHIP	1.5K	5%	1/10W	R410	1-216-089-00	RES, CHIP	47K	5%	1/10W
R113	1-216-081-00	METAL CHIP	22K	5%	1/10W						
						R411	1-216-075-00	METAL CHIP	12K	5%	1/10W
						R411	1-216-089-00	RES, CHIP	47K	5%	1/10W
						R412	1-216-075-00	METAL CHIP	12K	5%	1/10W
						R412	1-216-089-00	RES, CHIP	47K	5%	1/10W
						R413	1-216-075-00	METAL CHIP	12K	5%	1/10W

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
R413	1-216-089-00	RES, CHIP	47K	5%	1/10W (C2200)	R716	1-243-538-11	METAL OXIDE	2.7		1/2W
R414	1-216-295-00	SHORT	0			R717	1-249-421-11	CARBON	2.2K	5%	1/4W
R415	1-216-296-00	SHORT	0			R718	1-243-539-11	METAL OXIDE	1K		1/2W
R416	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	R719	1-216-073-00	METAL CHIP	10K	5%	1/10W
R417	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	R720	1-216-081-00	METAL CHIP	22K	5%	1/10W
R418	1-216-073-00	METAL CHIP	10K	5%	1/10W	R800	1-216-017-00	RES, CHIP	47	5%	1/10W
R419	1-216-073-00	METAL CHIP	10K	5%	1/10W						
R420	1-249-393-11	CARBON	10	5%	1/4W	R802	1-216-174-00	RES, CHIP	100	5%	1/8W
R500	1-216-073-00	METAL CHIP	10K	5%	1/10W (C2300X)	R803	1-216-073-00	METAL CHIP	10K	5%	1/10W
R500	1-216-089-00	RES, CHIP	47K	5%	1/10W (C2200)	R804	1-216-025-00	RES, CHIP	100	5%	1/10W
R502	1-216-073-00	METAL CHIP	10K	5%	1/10W (C2200)			< SWITCH >			
R502	1-216-295-00	SHORT	0	(C2300X)		S2	1-692-431-21	SWITCH, TACTILE (RESET)			
R503	1-247-855-11	CARBON	10K	5%	1/4W (C2200)			< THERMISTOR >			
R503	1-247-871-11	CARBON	47K	5%	1/4W (C2300X)	TH800	1-801-792-21	THERMISTOR, POSITIVE			
R504	1-216-009-00	RES, CHIP	22	5%	1/10W (C2200)			< TUNER >			
R504	1-216-057-00	METAL CHIP	2.2K	5%	1/10W (C2300X)	TU100	1-693-458-11	TUNER UNIT (FM/AM)			
R601	1-216-065-00	RES, CHIP	4.7K	5%	1/10W			< VIBRATOR >			
R605	1-216-089-00	RES, CHIP	47K	5%	1/10W	X1	1-781-294-21	VIBRATOR, CRYSTAL (18.432MHz)			
R606	1-216-089-00	RES, CHIP	47K	5%	1/10W	X2	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)			
R609	1-208-806-11	RES, CHIP	10K	0.5%	1/10W	X100	1-781-246-21	VIBRATOR, CRYSTAL (10.25MHz)			
R610	1-208-806-11	RES, CHIP	10K	0.5%	1/10W	*****					
R611	1-216-097-00	RES, CHIP	100K	5%	1/10W			MISCELLANEOUS			

R612	1-216-097-00	RES, CHIP	100K	5%	1/10W	9	1-776-527-31	CORD (WITH CONNECTOR) (ISO) (POWER)			
R613	1-216-025-00	RES, CHIP	100	5%	1/10W	66	1-694-696-11	CONDUCTIVE BOARD, CONNECTION			
R614	1-216-025-00	RES, CHIP	100	5%	1/10W	F700	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) (10A)			
R615	1-216-025-00	RES, CHIP	100	5%	1/10W	HP901	1-500-661-11	HEAD (PLAYBACK)			
R616	1-216-025-00	RES, CHIP	100	5%	1/10W	LCD900	1-803-841-11	DISPLAY PANEL, LIQUID CRYSTAL			
						M901	1-763-507-11	MOTOR (CAPSTAN/REEL)			
R617	1-247-807-31	CARBON	100	5%	1/4W	S901	1-771-928-11	SWITCH (SLIDE) (DIRECTION)			
R618	1-216-049-11	RES, CHIP	1K	5%	1/10W	S902	1-771-926-11	SWITCH (LEAF) (FF/REW)			
R619	1-216-049-11	RES, CHIP	1K	5%	1/10W	S903	1-771-927-11	SWITCH (LEAF) (TAPE DETECT)			
R620	1-216-049-11	RES, CHIP	1K	5%	1/10W	*****					
R621	1-216-025-00	RES, CHIP	100	5%	1/10W			*****			
								HARDWARE LIST			
R622	1-216-089-00	RES, CHIP	47K	5%	1/10W			*****			
R623	1-247-839-11	CARBON	2.2K	5%	1/4W	#1	7-685-782-09	SCREW +PTT 2X5 (S)			
R624	1-216-049-11	RES, CHIP	1K	5%	1/10W	#2	7-685-792-09	SCREW +PTT 2.6X6 (S)			
R625	1-216-049-11	RES, CHIP	1K	5%	1/10W	#3	7-685-794-09	SCREW +PTT 2.6X10 (S)			
R700	1-249-413-11	CARBON	470	5%	1/4W	#4	7-685-105-19	TPG +P 2X8, TYPE 2, NON-SLIT			
R701	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	#6	7-627-553-27	PRECISION SCREW +P 2X2.5 TYPE3			
R702	1-249-421-11	CARBON	2.2K	5%	1/4W						
R703	1-216-081-00	METAL CHIP	22K	5%	1/10W	#7	7-685-101-11	SCREW +PTP 2X3 NON-SLIT			
R705	1-249-425-11	CARBON	4.7K	5%	1/4W	#8	7-621-255-35	SCREW +P 2X5			
R706	1-216-089-00	RES, CHIP	47K	5%	1/10W	#9	7-621-255-25	SCREW +P 2X4			
						#10	7-685-781-09	SCREW +PTT 2X4 (S)			
R707	1-247-863-11	CARBON	22K	5%	1/4W	*****					
R708	1-249-421-11	CARBON	2.2K	5%	1/4W						
R709	1-216-097-00	RES, CHIP	100K	5%	1/10W						
R710	1-249-385-11	CARBON	2.2	5%	1/6W						
R711	1-249-385-11	CARBON	2.2	5%	1/6W						
R712	1-249-385-11	CARBON	2.2	5%	1/6W						
R713	1-249-385-11	CARBON	2.2	5%	1/6W						
R714	1-216-073-00	METAL CHIP	10K	5%	1/10W						
R715	1-216-295-00	SHORT	0								

Ref. No.	Part No.	Description	Remark
ACCESSORIES & PACKING MATERIALS			

	3-868-290-11	MANUAL, INSTRUCTION (ENGLISH)	
	3-868-290-21	MANUAL, INSTRUCTION (FRENCH) (Canadian)	
	3-868-291-11	MANUAL, INSTRUCTION, INSTALL	
		(ENGLISH, FRENCH)	
	X-3378-490-1	CASE (PANEL) ASSY (for FRONT PANEL)	

PARTS FOR INTALLATION AND CONNECTIONS

501	X-3376-298-1	FRAME ASSY, FITTING
502	3-041-599-01	COLLAR
503	3-934-325-01	SCREW, +K (5X8) TAPPING
504	X-3370-076-1	SCREW ASSY (KEY), FITTING
505	3-914-406-01	SUPPORT (ND), FITTING
506	1-776-207-31	CORD (WITH CONNECTOR) (POWER)

